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RULE 1200-1-11-.02 IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

(1) General [40 CFR 261 Subpart A]

(a) Purpose and Scope [40 CFR 261.1]

1. This Rule identifies those solid wastes which are subject to regulation as hazardous wastes under Rules 1200-1-11-.03 through .07. In this Rule:

(i) Paragraph (1) defines the terms "solid waste" and "hazardous waste", identifies those wastes which are excluded from regulation under Rules 1200-1-11-.03 through .07, .09 and .10 and establishes special management requirements for hazardous waste produced by conditionally exempt small quantity generators and hazardous waste which is recycled.

(ii) Paragraph (2) sets forth the criteria used by the Board to identify characteristics of hazardous waste and to list particular hazardous wastes.

(iii) Paragraph (3) identifies characteristics of hazardous waste.

(iv) Paragraph (4) lists particular hazardous wastes.

2. (i) The definition of solid waste contained in this Rule applies only to wastes that also are hazardous for purposes of the regulations implementing T.C.A. Title 68, Chapter 212. For example it does not apply to materials (such as non-hazardous scrap, paper, textiles, or rubber) that are not otherwise hazardous wastes and that are recycled.

(ii) This Rule identifies only some of the materials which are solid wastes and hazardous wastes under T.C.A. Sections 68-212-105, 68-212-107, 68-212-111, 68-212-114 and 68-212-115. A material which is not defined as a solid waste in this Rule, or is not a hazardous waste identified or listed in this Rule, is still a solid waste and a hazardous waste for purposes of these statutory sections if:

(I) In the case of T.C.A. Section 68-212-107, the Commissioner has reason to believe that the material may be a solid waste within the meaning of T.C.A. Section 68-212-104(17) and a hazardous waste within the meaning of T.C.A. Section 68-212-104(7); or

(II) In the case of T.C.A. Sections 68-212-105, 68-212-111, 68-212-114 and 68-212-115, the statutory definition of a waste and a hazardous waste are established.

3. For the purposes of subparagraph (b) and (f) of this paragraph:

(i) A "spent material" is any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing;

(ii) "Sludge" has the same meaning used in Rule 1200-1-11-.01(2)(a);

(iii) A "by-product" is a material that is not one of the primary products of a production process and is not solely or separately produced by the production process. Examples are process residues such as slags or distillation column

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bottoms. The term does not include a co-product that is produced for the general public's use and is ordinarily used in the form it is produced by the process.

(iv) A material is "reclaimed" if it is processed to recover a usable product, or if it is regenerated. Examples are recovery of lead values from spent batteries and regeneration of spent solvents.

(v) A material is "used or reused" if it is either:

(I) Employed as an ingredient (including use as an intermediate) in an industrial process to make a product (for example, distillation bottoms from one process used as feedstock in another process). However, a material will not satisfy this condition if distinct components of the material are recovered as separate end products (as when metals are recovered from metal-containing secondary materials); or

(II) Employed in a particular function or application as an effective substitute for a commercial product (for example, spent pickle liquor used as phosphorous precipitant and sludge conditioner in wastewater treatment).

(vi) "Scrap metal" is bits and pieces of metal parts (e.g., bars, turnings, rods, sheets, wire) or metal pieces that may be combined together with bolts or soldering (e.g., radiators, scrap automobiles, railroad box cars), which when worn or superfluous can be recycled.

(vii) A material is "recycled" if it is used, reused, or reclaimed.

(viii) A material is "accumulated speculatively" if it is accumulated before being recycled. A material is not accumulated speculatively, however, if the person accumulating it can show that the material is potentially recyclable and has a feasible means of being recycled; and that -- during the calendar year (commencing on January 1) -- the amount of material that is recycled, or transferred to a different site for recycling, equals at least 75 percent by weight or volume of the amount of that material accumulated at the beginning of the period. In calculating the percentage of turnover, the 75 percent requirement is to be applied to each material of the same type (e.g., slags from a single smelting process) that is recycled in the same way (i.e., from which the same material is recovered or that is used in the same way). Materials accumulating in units that would be exempt from regulation under subpart (d)3(i) of this paragraph are not be included in making the calculation. (Materials that are already defined as solid wastes also are not to be included in making the calculation.) Materials are no longer in this category once they are removed from accumulation for recycling, however.

(ix) “Excluded scrap metal” is processed scrap metal, unprocessed home scrap metal, and unprocessed prompt scrap metal.

(x) “Processed scrap metal” is scrap metal which has been manually or physically altered to either separate it into distinct materials to enhance economic value or to improve the handling of materials. Processed scrap metal includes, but is not limited to scrap metal which has been baled, shredded, sheared, chopped, crushed, flattened, cut, melted, or separated by metal type (i.e., sorted), and, fines, drosses and related materials which have been agglomerated. (Note:

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shredded circuit boards being sent for recycling are not considered processed scrap metal. They are covered under the exclusion from the definition of solid waste for shredded circuit boards being recycled (Rule 1200-1-11-.02(1)(d)1(xvi)).

(xi) “Home scrap metal” is scrap metal as generated by steel mills, foundries, and refineries such as turnings, cuttings, punchings, and borings.

(xii) “Prompt scrap metal” is scrap metal as generated by the metal working/fabrication industries and includes such scrap metal as turnings, cuttings, punchings, and borings. Prompt scrap is also known as industrial or new scrap metal.

(b) Definition of Solid Waste [40 CFR 261.2]

1. (i) A "solid waste" is any discarded material that is not excluded by part (d)1 of this paragraph or that is not excluded by variance granted under Rule 1200-1-11-.01(4)(a) and (b).

(ii) A "discarded material" is any material which is:

(I) "Abandoned", as explained in part 2 of this paragraph; or

(II) "Recycled", as explained in part 3 of this paragraph; or

(III) Considered "inherently waste-like", as explained in part 4 of this subparagraph; or

(IV) A military munition identified as a solid waste in Rule 1200-1-11-.09(13)(c).

2. Materials are solid waste if they are "abandoned" by being:

(i) Disposed of; or

(ii) Burned or incinerated; or

(iii) Accumulated, stored, or treated (but not recycled) before or in lieu of being abandoned by being disposed of, burned, or incinerated.

3. Materials are solid wastes if they are "recycled" -- or accumulated, stored, or treated before recycling -- as specified in subparts (i) through (iv) of this part:

(i) "Used in a manner constituting disposal".

(I) Materials noted with a "*" in Column 1 of Table I are solid wastes when they are:

I. Applied to or placed on the land in a manner that constitutes disposal; or

II. Used to produce products that are applied to or placed on the land or are otherwise contained in products that are applied to

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or placed on the land (in which cases the product itself remains a solid waste).

(II) However, commercial chemical products listed in subparagraph (4)(d) of this Rule are not solid wastes if they are applied to the land and that is their ordinary manner of use.

(ii) "Burning for energy recovery".

(I) Materials noted with a "*" in column 2 of Table 1 are solid wastes when they are:

I. Burned to recover energy;

II. Used to produce a fuel or are otherwise contained in fuels (in which cases the fuel itself remains a solid waste).

(II) However, commercial chemical products listed in subparagraph (4)(d) of this Rule are not solid wastes if they are themselves fuels.

(iii) "Reclaimed".

Materials noted with a "*" in column 3 of Table 1 are solid wastes when reclaimed (except as provided under subpart (d)1(xix) of this paragraph). Materials noted with a “-” in column 3 of Table 1 are not solid wastes when reclaimed.

(iv) "Accumulated speculatively".

Materials noted with a "*" in column 4 of Table 1 are solid wastes when accumulated speculatively.

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Table 1

	Use constituting disposal (Rule 1200-1-11-.02(1)(b)3(i))	Energy recovery/fuel (Rule 1200-1-11-.02(1)(b)3(ii))	Reclamation (Rule 1200-1-11-.02(1)(b)3(iii)) (except as provided in Rule 1200-1-11-.02(1)(d)1(xix) for mineral processing secondary materials	Speculative accumulation (Rule 1200-1-11-.02(1)(b)3(iv))
	(1)	(2)	(3)	(4)
Spent Materials	(*)	(*)	(*)	(*)
Sludges [listed in Rule 1200-1-11-.02(4)(b) or (c)]	(*)	(*)	(*)	(*)
Sludges exhibiting a characteristic of hazardous waste	(*)	(*)	_	(*)
By-products [listed in Rule 1200-1-11-.02(4)(b) or (c)]	(*)	(*)	(*)	(*)
By-products exhibiting a characteristic of hazardous waste	(*)	(*)	_	(*)
Commercial chemical products listed in Rule 1200-1-11-.02(4)(d)	(*)	(*)	–	_
Scrap metal other than excluded scrap metal (see Rule 1200-1-11-.02(1)(a)3(ix))	(*)	(*)	(*)	(*)

(Note: The terms "spent materials", "sludges", "by-products", “scrap metal" and “processed scrap metal” are defined in subparagraph (1)(a) of this Rule.)

4. "Inherently waste-like materials".

The following materials are solid wastes when they are recycled in any manner:

(i) Hazardous Waste Codes F020, F021 (unless used as an ingredient to make a product at the site of generation), F022, F023, F026, and F028.

(ii) Secondary materials fed to a halogen acid furnace that exhibit a characteristic of a hazardous waste or are listed as a hazardous waste as defined in paragraph (3)

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or (4) of this Rule, except for brominated material that meets the following criteria:

(I) The material must contain a bromine concentration of at least 45%; and

(II) The material must contain less than a total of 1% of toxic organic compounds listed in paragraph (5) Appendix VIII of this Rule; and

(III) The material is processed continually on-site in the halogen acid furnace via direct conveyance (hard piping).

(iii) The Board will use the following criteria to add wastes to that list:

(I) I. The materials are ordinarily disposed of, burned, or incinerated; or

II. The materials contain toxic constituents listed in paragraph (5) Appendix VIII of this Rule and these constituents are not ordinarily found in raw materials or products for which the materials substitute (or are found in raw materials or products in smaller concentrations) and are not used or reused during the recycling process; and

(II) The material may pose a substantial hazard to human health and the environment when recycled.

5. "Materials that are not solid waste when recycled".

(i) Materials are not solid wastes when they can be shown to be recycled by being:

(I) Used or reused as ingredients in an industrial process to make a product, provided the materials are not being reclaimed; or

(II) Used or reused as effective substitutes for commercial products; or

(III) Returned to the original process from which they are generated, without first being reclaimed or land disposed. The material must be returned as a substitute for feedstock materials. In cases where the original process to which the material is returned is a secondary process, the materials must be managed such that there is no placement on the land. In cases where the materials are generated and reclaimed within the primary mineral processing industry, the conditions of the exclusion found at subpart (d)1(xix) of this paragraph apply rather than this item.

(ii) The following materials are solid wastes, even if the recycling involves use, reuse, or return to the original process (described in items (i)(I) through (III) of this part):

(I) Materials used in a manner constituting disposal, or used to produce products that are applied to the land; or

(II) Materials burned for energy recovery, used to produce a fuel, or contained in fuels; or

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(III) Materials accumulated speculatively; or

(IV) Materials listed in subparts 4(i) and 4(ii) of this subparagraph.

6. "Documentation of claims that materials are not solid wastes or are conditionally exempt from regulation". Respondents in actions to enforce regulations implementing the Act and Rule Chapter 1200-1-11 who raise a claim that a certain material is not a solid waste, or is conditionally exempt from regulation, must demonstrate that there is a known market or disposition for the material, and that they meet the terms of the exclusion or exemption. In doing so, they must provide appropriate documentation (such as contracts showing that a second person uses the material as an ingredient in a production process) to demonstrate that the material is not a waste, or is exempt from regulation. In addition, owners or operators of facilities claiming that they actually are recycling materials must show that they have the necessary equipment to do so.

(c) Definition of Hazardous Waste [40 CFR 261.3]

1. A solid waste, as defined in subparagraph (b) of this paragraph, is a hazardous waste if:

(i) It is not excluded from regulation as a hazardous waste under part (d)2 of this paragraph; and

(ii) It meets any of the following criteria:

(I) It exhibits any of the characteristics of hazardous waste identified in paragraph (3) of this Rule. However, any mixture of a waste from the extraction, beneficiation, and processing of ores and minerals excluded under subpart (d)2(xv) of this paragraph and any other solid waste exhibiting a characteristic of hazardous waste under paragraph (3) of this Rule is a hazardous waste only if it exhibits a characteristic that would not have been exhibited by the excluded waste alone if such mixture had not occurred or if it continues to exhibit any of the characteristics exhibited by the non-excluded wastes prior to mixture. Further, for the purposes of applying the Toxicity Characteristic to such mixtures, the mixture is also a hazardous waste if it exceeds the maximum concentration for any contaminant listed in Table I to subparagraph (3)(e) of this Rule that would not have been exceeded by the excluded waste alone if the mixture had not occurred or if it continues to exceed the maximum concentration for any contaminant exceeded by the nonexempt waste prior to mixture.

(II) It is listed in paragraph (4) of this Rule and has not been excluded from the lists in paragraph (4) of this Rule under Rule 1200-1-11-.01(3)(a) and (c).

(III) (RESERVED) [261.3(a)(2)(iii)]

(IV) It is a mixture of solid waste and one or more hazardous wastes listed in paragraph (4) of this Rule and has not been excluded from subpart 1(ii) of this subparagraph under Rule 1200-1-11-.01(3)(a) and (c), parts 7 or 8 of this subparagraph; however, the following mixtures of solid wastes and hazardous wastes listed in paragraph (4) of this Rule are not hazardous wastes (except by application of items (I) or (II) of this

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subpart) if the generator can demonstrate that the mixture consists of wastewater the discharge of which is subject to regulation under T.C.A. §§69-3-101 et seq. (including wastewater at facilities which have eliminated the discharge of wastewater) and:

I. One or more of the following solvents listed in subparagraph (4)(b)--carbon tetrachloride, tetrachloroethylene, trichloroethylene--provided that the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system does not exceed 1 part per million; or

II. One or more of the following spent solvents listed in subparagraph (4)(b)--methylene chloride, 1,1,1-trichloroethane, chlorobenzene, o-dichlorobenzene, cresols, cresylic acid, nitrobenzene, toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, spent chlorofluorocarbon solvents--provided that the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system does not exceed 25 parts per million; or

III. One of the following wastes listed in subparagraph (4)(c), provided that the wastes are discharged to the refinery oil recovery sewer before primary oil/water/solids separation - heat exchanger bundle cleaning sludge from the petroleum refining industry (Hazardous Waste Code K050), crude oil storage tanks sediment from petroleum refining operations (Hazardous Waste Code K169), clarified slurry oil tank sediment and/or in-line filter/separation solids from petroleum refining operations (Hazardous Waste Code K170), spent hydrotreating catalyst (Hazardous Waste Code K171), and spent hydrorefining catalyst (Hazardous Waste Code K172); or

IV. A discarded commercial chemical product, or chemical intermediate listed in subparagraph (4)(d), arising from “de minimis” losses of these materials from manufacturing operations in which these materials are used as raw materials or are produced in the manufacturing process. For purposes of this subitem "de minimis" losses include those from normal material handling operations (e.g., spills from the unloading or transfer of materials from bins or other containers, leaks from pipes, valves or other devices used to transfer materials); minor leaks of process equipment, storage tanks or containers; leaks from well maintained pump packings and seals; sample purgings; relief device discharges; discharges from safety showers and rinsing and cleaning of personal safety equipment; and rinsate from empty containers or from containers that are rendered empty by that rinsing; or

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V. Wastewater resulting from laboratory operations containing toxic (T) wastes listed in paragraph (4) of this Rule, provided that the annualized average flow of laboratory wastewater does not exceed one percent of total wastewater flow into the headworks of the facility's wastewater treatment or pre-treatment system, or provided the wastes, combined annualized average concentration does not exceed one part per million in the headworks of the facility's wastewater treatment or pre-treatment facility. Toxic (T) wastes used in laboratories that are demonstrated not to be discharged to wastewater are not to be included in this calculation; or

VI. One or more of the following wastes listed in subparagraph (4)(c) --wastewaters from the production of carbamates and carbamoyl oximes (Hazardous Waste Code K157) --provided that the maximum weekly usage of formaldehyde, methyl chloride, methylene chloride, and triethylamine (including all amounts that can not be demonstrated to be reacted in the process, destroyed through treatment, or is recovered, i.e., what is discharged or volatilized) divided by the average weekly flow of process wastewater prior to any dilutions into the headworks of the facility’s wastewater treatment system does not exceed a total of 5 parts per million by weight; or

VII. Wastewaters derived from the treatment of one or more of the following wastes listed in subparagraph (4)(c) -- organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes (Hazardous Waste Code K156)--provided that the maximum concentration of formaldehyde, methyl chloride, methylene chloride, and triethylamine prior to any dilutions into the headworks of the facility’s wastewater treatment system does not exceed a total of 5 milligrams per liter.

(V) Rebuttable presumption for used oil. Used oil containing more than 1000 ppm total halogens is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in paragraph (4) of this Rule. Persons may rebut this presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an analytical method from SW-846, Third Edition, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in paragraph (5) Appendix VIII of this Rule). EPA Publication SW-846, Third Edition, is available from the Government Printing Office, Superintendent of Documents, PO Box 371954, Pittsburgh, PA 15250-7954. 202-783-3238 (document number 955-001-00000-1).

I. The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins, if they are processed, through a tolling agreement, to reclaim metalworking oils/fluids. The presumption does apply to

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metalworking oils/fluids if such oils/fluids are recycled in any other manner, or disposed.

II. The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

2. A solid waste which is not excluded from regulation under part (d)2 of this paragraph becomes a hazardous waste when any of the following events occur:

(i) In the case of a waste listed in paragraph (4) of this Rule, when the waste first meets the listing description set forth in paragraph (4) of this Rule.

(ii) In the case of a mixture of solid waste and one or more listed hazardous wastes, when a hazardous waste listed in paragraph (4) of this Rule is first added to the solid waste.

(iii) In the case of any other waste (including a waste mixture), when the waste exhibits any of the characteristics identified in paragraph (3) of this Rule.

3. Unless and until it meets the criteria of part 4 below:

(i) A hazardous waste will remain a hazardous waste.

(ii) (I) Except as otherwise provided in item (II) of this subpart, part 7 or part 8 of this subparagraph, any solid waste generated from the treatment, storage, or disposal of a hazardous waste, including any sludge, spill residue, ash, emission control dust, or leachate (but not including precipitation run-off) is a hazardous waste. (However, materials that are reclaimed from solid wastes and that are used beneficially are not solid wastes and hence are not hazardous wastes under this provision unless the reclaimed material is burned for energy recovery or used in a manner constituting disposal.)

(II) The following solid wastes are not hazardous even though they are generated from the treatment, storage, or disposal of a hazardous waste, unless they exhibit one or more of the characteristics of hazardous waste:

I. Waste pickle liquor sludge generated by lime stabilization of spent pickle liquor from the iron and steel industry (SIC Codes 331 and 332).

II. Waste from burning any of the materials exempted from regulation by items (f)1(iii)(III) and (IV) of this paragraph.

III. A. Nonwastewater residues, such as slag, resulting from high temperature metals recovery (HTMR) processing of K061, K062 or F006 waste, in units identified as rotary kilns, flame reactors, electric furnaces, plasma arc furnaces, slag reactors, rotary

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hearth furnace/electric furnace combinations or industrial furnaces (as defined in items (vi), (vii) and (xiii) of the definition for "Industrial furnace" in Rule 1200-1-11-.01(2)(a) that are disposed in nonhazardous solid waste (Subtitle D) units, provided that these residues meet the generic exclusion levels identified in the tables in this paragraph for all constituents, and exhibit no characteristics of hazardous waste. Testing requirements must be incorporated in a facility's waste analysis plan or a generator's self-implementing waste analysis plan; at a minimum, composite samples of residues must be collected and analyzed quarterly and/or when the process or operation generating the waste changes. Persons claiming this exclusion in an enforcement action will have the burden of proving by clear and convincing evidence that the material meets all of the exclusion requirements.

Constituent	Maximum for any single composite sample-TCLP (mg/l)
Generic exclusion levels for K061 and K062 nonwastewater HTMR residues	
Antimony	0.10
Arsenic	0.50
Barium	7.6
Beryllium	0.010
Cadmium	0.050
Chromium (total)	0.33
Lead	0.15
Mercury	0.009
Nickel	1.0
Selenium	0.16
Silver	0.30
Thallium	0.020
Zinc	70
Generic exclusion levels for F006 nonwastewater HTMR residues	
Antimony	0.10
Arsenic	0.50
Barium	7.6
Beryllium	0.010

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Cadmium	0.050
Chromium (total)	0.33
Cyanide (total) (mg/kg)	1.8
Lead	0.15
Mercury	0.009
Nickel	1.0
Selenium	0.16
Silver	0.30
Thallium	0.020
Zinc	70

B. A one-time notification and certification must be placed in the facility's files and sent to the Division Director for K061, K062 or F006 HTMR residues that meet the generic exclusion levels for all constituents and do not exhibit any characteristics that are sent to nonhazardous solid waste (Subtitle D) units. The notification and certification that is placed in the generators or treaters files must be updated if the process or operation generating the waste changes and/or if the nonhazardous solid waste (Subtitle D) unit receiving the waste changes. However, the generator or treater need only notify the Division Director or an authorized state on an annual basis if such changes occur. Such notification and certification should be sent to the Division Director by the end of the calendar year, but no later than December 31. The notification must include the following information: The name and address of the nonhazardous solid waste (Subtitle D) unit receiving the waste shipments; the Hazardous Waste Code(s) and treatability group(s) at the initial point of generation; and, the treatment standards applicable to the waste at the initial point of generation. The certification must be signed by an authorized representative and must state as follows: "I certify under penalty of law that the generic exclusion levels for all constituents have been met without impermissible dilution and that no characteristic of hazardous waste is exhibited. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

IV. Biological treatment sludge from the treatment of one of the following wastes listed in subparagraph (4)(c) - organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates

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and carbamoyl oximes (Hazardous Waste Code K156), and wastewaters from the production of carbamates and carbamoyl oximes (Hazardous Waste Code K157).

V. Catalyst inert support media separated from one of the following wastes listed in subparagraph (4)(c) of this Rule - Spent hydrotreating catalyst (Hazardous Waste Code K171) and Spent hydrorefining catalyst (Hazardous Waste Code K172).

4. Any solid waste described in part 3 of this subparagraph is not a hazardous waste if it meets the following criteria:

(i) In the case of any solid waste, it does not exhibit any of the characteristics of hazardous waste identified in paragraph (3) of this Rule. (However, wastes that exhibit a characteristic at the point of generation may still be subject to the requirements of Rule 1200-1-11-.10, even if they no longer exhibit a characteristic at the point of land disposal.)

(ii) In the case of a waste which is a listed waste under paragraph (4) of this Rule, contains a waste listed under paragraph (4) of this Rule or is derived from a waste listed in paragraph (4) of this Rule, it also has been excluded from part 3 of this subparagraph under Rule 1200-1-11-.01(3)(a) and (c).

5. (RESERVED) [40 CFR 261.3(e)]

6. Notwithstanding parts 1 through 4 of this subparagraph and provided the debris as defined in Rule 1200-1-11-.10 does not exhibit a characteristic identified at paragraph (3) of this Rule the following materials are not subject to regulation under Rules 1200-1-11-.01 through .07, .09 and .10:

(i) Hazardous debris as defined in Rule 1200-1-11-.10 that has been treated using one of the required extraction or destruction technologies specified in Table 1 of Rule 1200-1-11-.10(3)(f); persons claiming this exclusion in an enforcement action will have the burden of proving by clear and convincing evidence that the material meets all of the exclusion requirements; or

(ii) Debris as defined in Rule 1200-1-11-.10 of this chapter that the Commissioner, considering the extent of contamination, has determined is no longer contaminated with hazardous waste.

7. (i) A hazardous waste that is listed in paragraph (4) of this Rule solely because it exhibits one or more characteristics of ignitability as defined under subparagraph (3)(b) of this Rule, corrosivity as defined under subparagraph (3)(c) of this Rule, or reactivity as defined under subparagraph (3)(d) of this Rule is not a hazardous waste, if the waste no longer exhibits any characteristic of hazardous waste identified in paragraph (3) of this Rule.

(ii) The exclusion described in subpart (7)(i) of this subparagraph also pertains to:

(I) Any mixture of a solid waste and a hazardous waste listed in paragraph (4) of this Rule solely because it exhibits the characteristics of ignitability, corrosivity, or reactivity as regulated under item 1(ii)(IV) of this subparagraph; and

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(II) Any solid waste generated from treating, storing, or disposing of a hazardous waste listed in paragraph (4) of this Rule solely because it exhibits the characteristics of ignitability, corrosivity, or reactivity as regulated under item 3(ii)(I) of this subparagraph.

(iii) Wastes excluded under this part are subject to Rule 1200-1-11-.10 (as applicable), even if they no longer exhibit a characteristic at the point of land disposal.

(iv) Any mixture of a solid waste excluded from regulation under Rule 1200-1-11-.02(1)(d)2(xv) and a hazardous waste listed in paragraph (4) of this Rule solely because it exhibits one or more of the characteristics of ignitability, corrosivity, or reactivity as regulated under Rule 1200-1-11-.02(1)(c)1(ii)(IV) is not a hazardous waste, if the mixture no longer exhibits any characteristic of hazardous waste identified in paragraph (3) of this Rule for which the hazardous waste listed in paragraph (4) of this Rule was listed.

8. (i) Hazardous waste containing radioactive waste is no longer a hazardous waste when it meets the eligibility criteria and conditions of paragraph (14) of Rule 1200-1-11-.09 (“eligible radioactive mixed waste”).

(ii) The exemption described in subpart 8(i) of this subparagraph also pertains to:

(I) Any mixture of a solid waste and an eligible radioactive waste; and

(II) Any solid waste generated from treating, storing, or disposing of an eligible radioactive mixed waste.

(iii) Waste exempted under this section must meet the eligibility criteria and specified conditions in part (14)(b)6 of Rule 1200-1-11-.09 and part (14)(b)11 of Rule 1200-1-11-.09 (for storage and treatment) and in part (14)(m)1 of Rule 1200-1-11-.09 and part (14)(n)1 of Rule 1200-1-11-.09 (for transporation and disposal). Waste that fails to satisfy these eligibility criteria and conditions is regulated as hazardous waste.

(d) Exclusions [40 CFR 261.4] & [40 CFR 262.70]

1. Materials which are not solid wastes

The following materials are not solid wastes for the purpose of this Rule:

(i) (I) Domestic sewage; and

(II) Any mixture of domestic sewage and other wastes that passes through a sewer system to a publicly-owned treatment works (POTW) for treatment. "Domestic sewage" means untreated sanitary wastes that pass through a sewer system.

(Comment: This exclusion does not exclude waste/wastewaters while they are being generated, collected, stored, or treated before entering the sewer system. This exclusion applies when the material enters the sewer system where it will mix with sanitary wastes at any point before reaching the POTW whereupon this material is regulated under water pollution statutes and regulations. This material is subject to all applicable reporting, monitoring, and permitting requirements of the T. C. A. §§ 68-221-101, 69-3-101, et seq. and the associated regulations.

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Management of this material must be in compliance with all applicable authorization (permits, etc.) associated with disposal into a POTW for subsequent treatment.)

(ii) Industrial wastewater discharges that are point source discharges subject to regulation under section 402 of the Clean Water Act, as amended.

(Comment: This exclusion applies only to the actual point source discharge. It does not exclude industrial wastewaters while they are being collected, stored or treated before discharge, nor does it exclude sludges that are generated by industrial wastewater treatment.)

(iii) Irrigation return flows.

(iv) Source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 et seq.

(v) Materials subjected to in-situ mining techniques which are not removed from the ground as part of the extraction process.

(vi) Pulping liquors (i.e., black liquor) that are reclaimed in a pulping liquor recovery furnace and then reused in the pulping process, unless it is accumulated speculatively as defined in subpart (a)3(viii) of this paragraph.

(vii) Spent sulfuric acid used to produce virgin sulfuric acid, unless it is accumulated speculatively as defined in subpart (a)3(viii) of this paragraph.

(viii) Secondary materials that are reclaimed and returned to the original process or processes in which they were generated where they are reused in the production process provided:

(I) Only tank storage is involved, and the entire process through completion of reclamation is closed by being entirely connected with pipes or other comparable enclosed means of conveyance;

(II) Reclamation does not involve controlled flame combustion (such as occurs in boilers, industrial furnaces, or incinerators);

(III) The secondary materials are never accumulated in such tanks for over twelve months without being reclaimed; and

(IV) The reclaimed material is not used to produce a fuel, or used to produce products that are used in a manner constituting disposal.

(ix) (I) Spent wood preserving solutions that have been reclaimed and are reused for their original intended purpose;

(II) Wastewaters from the wood preserving process that have been reclaimed and are reused to treat wood; and

(III) Prior to reuse, the wood preserving wastewaters and spent wood preserving solutions described in item (I) and (II) of this subpart, so long as they meet all of the following conditions:

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I. The wood preserving wastewaters and spent wood preserving solutions are reused on-site at water borne plants in the production process for their original intended purpose;

II. Prior to reuse, the wastewaters and spent wood preserving solutions are managed to prevent release to either land or groundwater or both;

III. Any unit used to manage wastewaters and/or spent wood preserving solutions prior to reuse can be visually or otherwise determined to prevent such releases;

IV. Any drip pad used to manage the wastewaters and/or spent wood preserving solutions prior to reuse complies with the standards in Rule 1200-1-11-.05(23), regardless of whether the plant generates a total of less than 100 kg/month of hazardous waste; and

V. Prior to operating pursuant to this exclusion, the plant owner or operator submits to the Commissioner a one-time notification stating that the plant intends to claim the exclusion, giving the date on which the plant intends to begin operating under the exclusion, and containing the following language: "I have read the applicable regulation establishing an exclusion for wood preserving wastewaters and spent wood preserving solutions and understand it requires me to comply at all times with the conditions set out in the regulation." The plant must maintain a copy of that document in its on-site records for a period of no less than 3 years from the date specified in the notice. The exclusion applies only so long as the plant meets all of the conditions. If the plant goes out of compliance with any condition, it may apply to the Commissioner for reinstatement. The Commissioner may reinstate the exclusion upon finding that the plant has returned to compliance with all conditions and that violations are not likely to recur.

(x) Hazardous Waste Codes K060, K087, K141, K142, K143, K144, K145, K147, and K148, and any wastes from the coke by-products processes that are hazardous only because they exhibit the Toxicity Characteristic (TC) specified in subparagraph (3)(e) of this Rule when, subsequent to generation, these materials are recycled to coke ovens, to the tar recovery process as a feedstock to produce coal tar, or mixed with coal tar prior to the tar's sale or refining. This exclusion is conditioned on there being no land disposal of the wastes from the point they are generated to the point they are recycled to coke ovens or tar recovery or refining processes, or mixed with coal tar.

(xi) Nonwastewater splash condenser dross residue from the treatment of K061 in high temperature metals recovery units, provided it is shipped in drums (if shipped) and not land disposed before recovery.

(xii) (I) Oil-bearing hazardous secondary materials (i.e., sludges, byproducts, or spent materials) that are generated at a petroleum refinery (SIC code 2911) and are inserted into the petroleum refining process (SIC code

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2911 - including, but not limited to distillation, catalytic cracking, fractionation, or thermal cracking units (i.e., cokers)) unless the material is placed on the land, or speculatively accumulated before being so recycled. Materials inserted into thermal cracking units are excluded under this item provided that the coke product also does not exhibit a characteristic of hazardous waste. Oil-bearing hazardous secondary materials may be inserted into the same petroleum refinery where they are generated, or sent directly to another petroleum refinery, and still be excluded under this provision. Except as provided in item (II) of this subpart, oil-bearing hazardous secondary materials generated elsewhere in the petroleum industry (i.e., from sources other than petroleum refineries) are not excluded under this subpart. Residuals generated from processing or recycling materials excluded under this item (I) of this subpart, where such materials as generated would have otherwise met a listing under paragraph (4) of this Rule, are designated as F037 listed wastes when disposed of or intended for disposal.

(II) Recovered oil that is recycled in the same manner and with the same conditions as described in item (I) of this subpart. Recovered oil is oil that has been reclaimed from secondary materials (including wastewater generated from normal petroleum industry practices, including refining, exploration and production, bulk storage, and transportation incident thereto (SIC codes 1311, 1321, 1381, 1382, 1389, 2911, 4612, 4613, 4922, 4923, 4789, 5171, and 5172). Recovered oil does not include oil-bearing hazardous wastes listed in paragraph (4) of this Rule; however, oil recovered from such wastes may be considered recovered oil. Recovered oil does not include used oil as defined in Rule 1200-1-11-.11(1)(a).

(xiii) Petroleum tank bottom waters (the water phase which accumulates in operating petroleum tanks) removed from petroleum tanks at retail, government or private outlets, bulk petroleum plants and terminals, or petroleum pipeline breakout tankage that contain recoverable petroleum product provided:

(I) The petroleum product is being or shall be legitimately recycled;

(II) The owner or operator of the petroleum facility maintains adequate records which document:

I. The dates and amounts of material removed from the petroleum tanks;

II. The dates the materials were either recycled on-site or shipped off-site to a legitimate recycler; and

III. If shipped off-site for recycling, the names of recyclers and transporters used;

(III) If accumulated on-site before being recycled, the material is accumulated in suitable tanks or containers; and:

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I. Each tank or container is appropriately labeled or marked as to its contents;

II. The material is not accumulated on-site at retail government or private outlets for more than 30 days from the date that a total of 55 gallons has accumulated after removal from the petroleum tank before being recycled on-site or shipped off-site to a legitimate recycling facility; or

III. The material is not accumulated on-site at all other petroleum facilities for more than 90 days from the date it was removed from the petroleum tank before being recycled on-site or shipped off-site to a legitimate recycling facility; and

IV. Each tank or container is managed in such a manner as to minimize threats to public health and the environment, (e.g., keeping containers closed during storage, etc.).

(IV) These materials are not, at any time, accumulated or stored in earthen vessels (including, but not limited to inground or aboveground ponds, lagoons, or surface impoundments).

(Note: Any management of petroleum tank bottom waters or their residues by the generator, transporter, or processor/re-refiner will void this exclusion and will render these materials fully subject to a hazardous waste determination and management as appropriate.)

(xiv) Petroleum tank bottom waters (the water phase which accumulates in operating petroleum tanks) removed from petroleum tanks at retail, government or private outlets, bulk petroleum plants or terminals, or petroleum pipeline breakout tankage that contain recoverable petroleum product and which are received at recycling facilities for product reclamation provided that:

(I) The petroleum product is being or shall be legitimately recycled; and

(II) The owner or operator of the recycling facility maintains adequate records which document:

I. The generators and transporters names and addresses, and the dates and amounts of material received by the facility from off-site for recycling;

II. The recovered quantities of product; and

III. If the recovered product is shipped off-site, the names of the transporter(s) used and the dates and quantities of recovered product shipped off-site after recovery.

(III) These materials are not, at any time, accumulated or stored in earthen vessels (including, but not limited to inground or aboveground ponds, lagoons, or surface impoundments).

(Note: Any management of petroleum tank bottom waters or their residues by the generator, transporter, or processor/re-refiner will void this exclusion and will render these materials fully subject to a hazardous waste determination and management as appropriate.)

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(xv) Excluded scrap metal (processed scrap metal, unprocessed home scrap metal, and unprocessed prompt scrap metal) being recycled.

(xvi) Shredded circuit boards being recycled provided that they are:

(I) Stored in containers sufficient to prevent a release to the environment prior to recovery; and

(II) Free of mercury switches, mercury relays and nickel-cadmium batteries and lithium batteries.

(xvii) Condensates derived from the overhead gases from kraft mill steam strippers that are used to comply with 40 CFR 63.446(e). The exemption applies only to combustion at the mill generating the condensates.

(xviii) Comparable fuels or comparable syngas fuels (i.e., comparable/syngas fuels) that meet the requirements of subparagraph (4)(i) of this Rule.

(xix) Spent materials (as defined in subparagraph (a) of this paragraph) (other than hazardous wastes listed in paragraph (4) of this Rule) generated within the primary mineral processing industry from which minerals, acids, cyanide, water or other values are recovered by mineral processing or by beneficiation, provided that:

(I) The spent material is legitimately recycled to recover minerals, acids, cyanide, water or other values.

(II) The spent material is not accumulated speculatively.

(III) Except as provided in item (IV) of this subpart, the spent material is stored in tanks, containers, or buildings meeting the following minimum integrity standards: a building must be an engineered structure with a floor, walls, and a roof all of which are made of non-earthen materials providing structural support (except smelter buildings may have partially earthen floors provided the secondary material is stored on the non-earthen portion), and have a roof suitable for diverting rainwater away from the foundation; a tank must be free standing, not be a surface impoundment (as defined in Rule 1200-1-11-.01(2)(a)), and be manufactured of a material suitable for containment of its contents; a container must be free standing and be manufactured of a material suitable for containment of its contents. If tanks or containers contain any particulate which may be subject to wind dispersal, the owner/operator must operate these units in a manner which controls fugitive dust. Tanks, containers, and buildings must be designed, constructed and operated to prevent significant releases to the environment of these materials.

(IV) The Commissioner may make a site-specific determination, after public review and comment, that only solid mineral processing spent materials may be placed on pads, rather than in tanks, containers, or buildings. Solid mineral processing spent materials do not contain any free liquid. The decision-maker must affirm that pads are designed, constructed

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and operated to prevent significant releases of the spent material into the environment. Pads must provide the same degree of containment afforded by the non-RCRA tanks, containers and buildings eligible for exclusion.

I. The decision-maker must also consider if storage on pads poses the potential for significant releases via groundwater, surface water, and air exposure pathways. Factors to be considered for assessing the groundwater, surface water, air exposure pathways are: the volume and physical and chemical properties of the spent material, including its potential for migration off the pad; the potential for human or environmental exposure to hazardous constituents migrating from the pad via each exposure pathway, and the possibility and extent of harm to human and environmental receptors via each exposure pathway.

II. Pads must meet the following minimum standards: be designed of non-earthen material that is compatible with the chemical nature of the mineral processing spent material, capable of withstanding physical stresses associated with placement and removal, have run-on/runoff controls, be operated in a manner which controls fugitive dust, and have integrity assurance through inspections and maintenance programs.

III. Before making a determination under this subpart, the Commissioner must provide public notice and the opportunity for comment to all persons potentially interested in the determination. This can be accomplished by the owner or operator placing notice, as provided for in Rule 1200-1-11-.07(7)(e) and as prepared and required by the Commissioner, of this action in local newspapers, or broadcasting notice over local radio stations. The owner or operator shall provide proof of the completion of all notice requirements to the Commisioner within ten (10) days following conclusion of the public notice procedures.

(V) The owner or operator provides notice to the Commissioner, providing the following information: the types of materials to be recycled; the type and location of the storage units and recycling processes; and the annual quantities expected to be placed in land-based units. This notification must be updated when there is a change in the type of materials recycled or the location of the recycling process.

(VI) For purposes of subpart 2 (xv) of this subparagraph, mineral processing spent materials must be the result of mineral processing and may not include any listed hazardous wastes. Listed hazardous wastes and characteristic hazardous wastes generated by non-mineral processing industries are not eligible for the conditional exclusion from the definition of solid waste.

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(xx) Petrochemical recovered oil from an associated organic chemical manufacturing facility, where the oil is to be inserted into the petroleum refining process (SIC code 2911) along with normal petroleum refinery process streams, provided:

(I) The oil is hazardous only because it exhibits the characteristic of ignitability (as defined in subparagraph (3)(b) of this Rule) and/or toxicity for benzene (subparagraph (3)(e) of this Rule, waste code D018); and

(II) The oil generated by the organic chemical manufacturing facility is not placed on the land, or speculatively accumulated before being recycled into the petroleum refining process. An "associated organic chemical manufacturing facility" is a facility where the primary SIC code is 2869, but where operations may also include SIC codes 2821, 2822, and 2865; and is physically co-located with a petroleum refinery; and where the petroleum refinery to which the oil being recycled is returned also provides hydrocarbon feedstocks to the organic chemical manufacturing facility. "Petrochemical recovered oil" is oil that has been reclaimed from secondary materials (i.e., sludges, byproducts, or spent materials, including wastewater) from normal organic chemical manufacturing operations, as well as oil recovered from organic chemical manufacturing processes.

(xxi) Spent caustic solutions from petroleum refining liquid treating processes used as a feedstock to produce cresylic or naphthenic acid unless the material is placed on the land, or accumulated speculatively as defined in part (1)(a)3 of this Rule.

(xxii) Hazardous secondary materials used to make zinc fertilizers, provided that the conditions specified below are satisfied:

(I) Hazardous secondary materials used to make zinc micronutrient fertilizers must not be accumulated speculatively, as defined in subpart (1)(a)3(viii) of this Rule.

(II) Generators and intermediate handlers of zinc-bearing hazardous secondary materials that are to be incorporated into zinc fertilizers must:

I. Submit a one-time notice to the Commissioner which contains the name, address and installation identification number of the generator or intermediate handler facility, provides a brief description of the secondary material that will be subject to the exclusion, and identifies when the manufacturer intends to begin managing excluded, zinc-bearing hazardous secondary materials under the conditions specified in this subpart.

II. Store the excluded secondary material in tanks, containers, or buildings that are constructed and maintained in a way that prevents releases of the secondary materials into the environement. At a minimum, any building used for this purpose must be an engineered structure made of non-earthen materials that provide structural support, and must

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have a floor, walls and a roof that prevent wind dispersal and contact with rainwater. Tanks used for this purpose must be structurally sound and, if outdoors, must have roofs or covers that prevent contact with wind and rain. Containers used for this purpose must be kept closed except when it is necessary to add or remove material, and must be in sound condition. Containers that are stored outdoors must be managed within storage areas that:

A. Have containment structrures or systems sufficiently impervious to contain leaks, spills and accumulated precipitation; and

B. Provide for effective drainage and removal of leaks, spills and accumulated precipitation; and

C. Prevent run-on into the containment system.

III. With each off-site shipment of excluded hazardous secondary materials, provide written notice to the receiving facility that the material is subject to the conditions of this subpart.

IV. Maintain at the generator's or intermediate handler's facility for no less than three years records of all shipments of excluded hazardous secondary materials. For each shipment these records must at a minimum contain the following information:

A. Name of the transporter and date of the shipment;

B. Name and address of the facility that received the excluded material, and documentation confirming receipt of the shipment; and

C. Type and quantity of excluded secondary material in each shipment.

(III) Manufacturers of zinc fertilizers or zinc fertilizer ingredients made from excluded hazardous secondary materials must:

I. Store excluded hazardous secondary materials in accordance with the storage requirements for generators and intermediate handlers, as specified in subitem (II) II of this subpart.

II. Submit a one-time notification to the Commissioner that, at a minimum, specifies the name, address and installation identification number of the manufacturing facility, and identifies when the manufacturer intends to begin managing excluded, zinc-bearing hazardous secondary materials under the conditions specified in this subpart.

III. Maintain for a minimum of three (3) years records of all shipments of excluded hazardous secondary materials

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received by the manufacturer, which must at a minimum identify for each shipment the name and address of the generating facility, name of the transporter and the date the materials were received, the quantity received, and a brief description of the industrial process that generated the material.

IV. Submit to the Commissioner an annual report that identifies the total quantities of all excluded hazardous secondary materials that were used to manufacture zinc fertilizers or zinc fertilizer ingredients in the previous year, the name and address of each generating facility, and the industrial process(es) from which they were generated.

(IV) Nothing in this subpart preempts, overrides or otherwise negates the provision in Rule 1200-1-11-.03(1)(b) which requires any person who generates a solid waste to determine if that waste is a hazardous waste.

(V) Interim status and permitted storage units that have been used to store only zinc-bearing hazardous wastes prior to the submission of the one-time notice described in subitem (II) I of this subpart, and that afterward will be used only to store hazardous secondary materials excluded under subitem (II) I of this subpart, are not subject to the closure requirements of Rules 1200-1-11-.05 and .06.

(xxiii) Zinc fertilizers made from hazardous wastes, or hazardous secondary materials that are excluded under subpart (xxii) of this part, provided that:

(I) The fertilizers meet the following contaminate limits:

I. For metal contaminants:

Constituent	Maximum Allowable Total Concentration in Fertilizer, per Unit (1%) of Zinc (ppm)
Arsenic	0.3
Cadmium	1.4
Chromium	0.6
Lead	2.8
Mercury	0.3

II. For dioxin contaminants the fertilizer must contain no more than eight (8) parts per trillion of dioxin, measured as toxic equivalent (TEQ).

(II) The manufacturer performs sampling and analysis of the fertilizer product to determine compliance with the contaminant limits for metals no less than every six months, and for dioxins no less than every twelve months. Testing must also be performed whenever changes occur to manufacturing processes or ingredients that could significantly affect the amounts of contaminants in the fertilizer product. The manufacturer may use any reliable analytical method to demonstrate

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that no constituent of concern is present in the product at concentrations above the applicable limits. It is the responsibility of the manufacturer to ensure that the sampling and analysis are unbiased, precise, and representative of the product(s) introduced into commerce.

(III) The manufacturer maintains for no less than three years records of all sampling and analyses performed for purposes of determining compliance with the requirements of item (II) of this subpart. Such records must at a minimum include:

I. The dates and times product samples were taken, and the dates the samples were analyzed;

II. The names and qualifications of the person(s) taking the samples;

III. A description of the methods and equipment used to take the samples;

IV. The name and address of the laboratory facility at which analyses of the samples were performed;

V. A description of the analytical methods used, including any cleanup and sample preparation methods; and

VI. All laboratory analytical results used to determine compliance with the contaminant limits specified in this subpart.

2. Wastes Which Are Not Hazardous Wastes

The following wastes are not hazardous wastes:

(i) Household waste, including household waste that has been collected, transported, stored, treated, disposed, recovered (e.g., refuse-derived fuel) or reused. "Household waste" means any material (including garbage, trash and sanitary wastes in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds and day-use recreation areas). A resource recovery facility managing municipal waste shall not be deemed to be treating, storing, disposing of, or otherwise managing hazardous wastes for the purposes of regulation under Rule Chapter 1200-1-11, if such facility:

(I) Receives and burns only

I. Household waste (from single and multiple dwellings, hotels, motels, and other residential sources) and

II. Waste from commercial or industrial sources that does not contain hazardous waste; and

(II) Such facility does not accept hazardous wastes and the owner or operator of such facility has established contractual requirements or

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other appropriate notification or inspection procedures to assure that hazardous wastes are not received at or burned in such facility.

(ii) The following wastes generated within a farm and incidental to the operation of that farm:

(I) Wastes from the growing and harvesting of agricultural crops or from the raising of animals (including animal manures), which are returned to the soil as fertilizers; and

(II) Waste pesticides, provided the farmer triple-rinses each emptied pesticide container (using a capable solvent) and disposes of the pesticide residues on his own farm in a manner consistent with the disposal instructions on the pesticide label.

(iii) Mining overburden returned to the mine site.

(iv) Waste which consists of discarded arsenical-treated wood or wood products which fails the test for the Toxicity Characteristic for Hazardous Waste Codes D004 through D017 and which is not a hazardous waste for any other reason if the waste is generated by persons who utilize the arsenical-treated wood and wood products for these materials' intended end use.

(v) Wastes which fail the test for the Toxicity Characteristic because chromium is present or are listed in paragraph (4) of this Rule due to the presence of chromium, which do not fail the test for the Toxicity Characteristic for any other constituent or are not listed due to the presence of any other constituent, and which do not fail the test for any other characteristic, if a waste generator demonstrates to the satisfaction of the Director, by submitting an exclusion request and supporting documentation, that:

(I) The chromium in the waste is exclusively (or nearly exclusively) trivalent chromium; and

(II) The waste generated from an industrial process is trivalent chromium exclusively (or nearly exclusively) and the process does not contain more than minimal amounts of hexavalent chromium[1]; and

(III) The waste is managed by the waste generator in non-oxidizing environments.

The generator shall also submit to the Department a Chromium Exclusion Review Fee identified in Rule 1200-1-11-.08(11) prior to the Director's review of the submitted documentation.

Such exclusion shall be effective only after approval in writing by the Director. Persons who obtain an exclusion shall:

(I) Annually recertify the accuracy of the information on a form provided by the Director that there has been no change in the waste stream or the process generating the waste since the original exlusion was granted; and

[1] Hexavalent chromium concentrations below 5 mg/l currently are considered minimal.

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(II) It shall be the responsibility of the generator (applicant) to submit all recertifications as required by item (I) by March 1 of each succeeding year following the granting of the exclusion.

(III) If a change in the waste stream or the process generating the waste has occurred since the original exclusion was granted, the generator (applicant) shall submit a new exclusion request and review fee to the Director.

(vi) Specific wastes which meet the standard in subpart (v) of this part (so long as they do not fail the test for the toxicity characteristic for any other constituent, and do not exhibit any other characteristic) are:

(I) Chrome (blue) trimmings generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(II) Chrome (blue) shavings generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; shearling.

(III) Buffing dust generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue.

(IV) Sewer screenings generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(V) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(VI) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; and through-the-blue.

(VII) Waste scrap leather from the leather tanning industry, the shoe manufacturing industry, and other leather product manufacturing industries.

(VIII) Wastewater treatment sludges from the production of $Ti0_2$ pigment using chromium-bearing ores by the chloride process.

(vii) Petroleum-contaminated media and debris that fail the test for the Toxicity Characteristic of subparagraph (3)(e) of this Rule (Hazardous Waste Codes D018 through D043 only) and are subject to the corrective action regulations

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under 40 CFR Part 280 (as those Federal regulations exist on the effective date of these Rules).

(viii) Injected groundwater that is hazardous only because it exhibits the Toxicity Characteristic (Hazardous Waste Codes D018 through D043 only) in subparagraph (3)(e) of this Rule that is reinjected through an underground injection well pursuant to free phase hydrocarbon recovery operations undertaken at petroleum refineries, petroleum marketing terminals, petroleum bulk plants, petroleum pipelines, and petroleum transportation spill sites until January 25, 1993. This extension applies to recovery operations in existence, or for which contracts have been issued, on or before March 25, 1991. New operations involving injection wells (beginning after March 25, 1991) will qualify for this compliance date extension (until January 25, 1993) only if operations are performed pursuant to a written state agreement issued under the Tennessee Water Quality Control Act (T.C.A. §69-3-101 et seq.) that includes a provision to assess the groundwater and the need for further remediation once the free phase recovery is completed.

(ix) Used chlorofluorocarbon refrigerants from totally enclosed heat transfer equipment, including mobile air conditioning systems, mobile refrigeration, and commercial and industrial air conditioning and refrigeration systems that use chlorofluorocarbons as the heat transfer fluid in a refrigeration cycle, provided the refrigerant is reclaimed for further use.

(x) Non-terne plated used oil filters that are not mixed with wastes listed in paragraph (4) of this rule if these oil filters have been gravity hot-drained using one of the following methods:

(I) Puncturing the filter anti-drain back valve or the filter dome end and hot-draining;

(II) Hot-draining and crushing;

(III) Dismantling and hot-draining; or

(IV) Any other equivalent hot-draining method which will remove used oil.

(xi) Used oil re-refining distillation bottoms that are used as feedstock to manufacture asphalt products.

(xii) Leachate or gas condensate collected from landfills where certain solid wastes have been disposed, provided that:

(I) The solid wastes disposed would meet one or more of the listing descriptions for hazardous Waste Codes K169, K170, K171, K172, K174, K175, K176, K177, and K178 if these wastes had been generated after November 28, 2000;

(II) The solid wastes described in item (I) of this subpart were disposed prior to November 28, 2000;

(III) The leachate or gas condensate do not exhibit any characteristic of hazardous waste nor are derived from any other listed hazardous waste;

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(IV) Discharge of the leachate or gas condensate, including leachate or gas condensate transferred from the landfill to a POTW by truck, rail, or dedicated pipe, is subject to regulation under sections 307(b) or 402 of the Clean Water Act.

(V) As of February 13, 2001, leachate or gas condensate derived from K169-K172 is no longer exempt if it is stored or managed in a surface impoundment prior to discharge. After November 21, 2003, leachate or gas condensate derived from K176, K177, and K178 will no longer be exempt if it is stored or managed in a surface impoundment prior to discharge. There is one exception: if the surface impoundment is used to temporarily store leachate or gas condensate in response to an emergency situation (e.g., shutdown of wastewater treatment system), provided the impoundment has a double liner, and proided the leachate or gas condensate is removed from the impoundment and continues to be managed in compliance with the conditions of this item (V) after the emergency ends.

(xiii) Fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste, generated primarily from the combustion of coal or other fossil fuels, except as provided by Rule 1200-1-11-.09(8)(m) for facilities that burn or process hazardous waste.

(xiv) Drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil, natural gas or geothermal energy.

(xv) Waste from the extraction, beneficiation, and processing of ores and minerals (including coal, phosphate rock and overburden from the mining of uranium ore), except as provided by Rule 1200-1-11-.09(8)(m) for facilities that burn or process hazardous waste.

(I) For purposes of this subpart, beneficiation of ores and minerals is restricted to the following activities: crushing; grinding; washing; dissolution; crystallization; filtration; sorting; sizing; drying; sintering; pelletizing; briquetting; calcining to remove water and/or carbon dioxide; roasting, autoclaving, and/or chlorination in preparation for leaching (except where the roasting (and/or autoclaving and/or chlorination)/leaching sequence produces a final or intermediate product that does not undergo further beneficiation or processing); gravity concentration; magnetic separation; electrostatic separation; flotation; ion exchange; solvent extraction; electrowinning; precipitation; amalgamation; and heap, dump, vat, tank, and <u>in situ</u> leaching.

(II) For the purpose of this subpart, solid waste from the processing of ores and minerals includes only the following wastes as generated:

A.. Slag from primary copper processing;

B. Slag from primary lead processing;

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C. Red and brown muds from bauxite refining;

D. Phosphogypsum from phosphoric acid production;

E. Slag from elemental phosphorus production;

F. Gasifier ash from coal gasification;

G. Process wastewater from coal gasification;

H. Calcium sulfate wastewater treatment plant sludge from primary copper processing;

I. Slag tailings from primary copper processing;

J. Fluorogypsum from hydrofluoric acid production;

K. Process wastewater from hydrofluoric acid production;

L. Air pollution control dust/sludge from iron blast furnaces;

M. Iron blast furnace slag;

N. Treated residue from roasting/leaching of chrome ore;

O. Process wastewater from primary magnesium processing by the anhydrous process;

P. Process wastewater from phosphoric acid production;

Q. Basic oxygen furnace and open hearth furnace air pollution control dust/sludge from carbon steel production;

R. Basic oxygen furnace and open hearth furnace slag from carbon steel production;

S. Chloride process waste solids from titanium tetrachloride production;

T. Slag from primary zinc processing.

(III) A residue derived from co-processing mineral processing secondary materials with normal beneficiation raw materials or with normal mineral processing raw materials remains excluded under this part if the owner or operator:

I. Processes at least 50 percent by weight normal beneficiation raw materials or normal mineral processing raw materials; and,

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II. Legitimately reclaims the secondary mineral processing materials.

(xvi) Cement kiln dust waste, except as provided by Rule 1200-1-11-.09(8)(m) for facilities that burn or process hazardous waste.

3. Hazardous Wastes Which Are Exempted From Certain Regulations

(i) A hazardous waste which is generated in a product or raw material storage tank, a product or raw material transport vehicle or vessel, a product or raw material pipeline, or in a manufacturing process unit or an associated non-waste-treatment manufacturing unit, is not subject to regulation under these Rules except as specified in subpart (ii) of this part until it exits the unit in which it was generated, unless the unit is a surface impoundment, or unless the hazardous waste remains in the unit more than 90 days after the unit ceases to be operated for manufacturing, or for storage or transportation of product or raw materials.

(ii) A hazardous waste as described in subpart (i) of this part shall be subject to the generator notification requirement of Rule 1200-1-11.03(2), and shall be subject to such requirement irrespective of how the waste is managed after it exits the units in which it was generated (e.g., even if it exits directly into a domestic sewer system), except as provided otherwise in Rule 1200-1-11-.03(2)(a)2. Such a waste shall also be subject to the annual reporting requirements of Rule 1200-1-11-.03(5)(b) for the years in which it is removed from the units in which it was generated.

4. Samples

(i) Except as provided in subpart (ii) of this part, a sample of solid waste or a sample of water, soil, or air, which is collected for the sole purpose of testing to determine its characteristics or composition, is not subject to any requirements of these Rules when:

(I) The sample is being transported to a laboratory for the purpose of testing; or

(II) The sample is being transported back to the sample collector after testing; or

(III) The sample is being stored by the sample collector before transport to a laboratory for testing; or

(IV) The sample is being stored in a laboratory before testing; or

(V) The sample is being stored in a laboratory after testing but before it is returned to the sample collector; or

(VI) The sample is being stored temporarily in the laboratory after testing for a specific purpose (for example, until the conclusion of a court case or enforcement action where further testing of the sample may be necessary).

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(ii) In order to qualify for the exemption in items (i)(I) and (II) of this part a sample collector shipping samples to a laboratory and a laboratory returning samples to a sample collector must:

(I) Comply with U.S. Department of Transportation (DOT), U.S. Postal Service (USPS), or any other applicable shipping requirements; or

(II) Comply with the following requirements if the sample collector determines that DOT, USPS, or other shipping requirements do not apply to the shipment of the sample:

I. Assure that the following information accompanies the sample:

A. The sample collector's name, mailing address, and telephone number;

B. The laboratory's name, mailing address, and telephone number;

C. The quantity of the sample;

D. The date of shipment; and

E. A description of the sample.

II. Package the sample so that it does not leak, spill, or vaporize from its packaging.

(iii) This exemption does not apply if the laboratory determines that the waste is hazardous but the laboratory is no longer meeting any of the conditions stated in subpart (i) of this part.

5. Treatability Study Samples

(i) Except as provided in subpart (ii) of this part, persons who generate or collect samples for the purpose of conducting treatability studies as defined in Rule 1200-1-11-.01(2)(a), are not subject to any requirement of Rule 1200-1-11-.02, .03 and .04, nor are such samples included in the quantity determinations of paragraph (e) of this Rule and Rule 1200-1-11-.03(4)(e)6 when:

(I) The sample is being collected and prepared for transportation by the generator or sample collector; or

(II) The sample is being accumulated or stored by the generator or sample collector prior to transportation to a laboratory or testing facility; or

(III) The sample is being transported to the laboratory or testing facility for the purpose of conducting a treatability study.

(ii) The exemption in subpart (i) of this part is applicable to samples of hazardous waste being collected and shipped for the purpose of conducting treatability studies provided that:

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(I) The generator or sample collector uses (in "treatability studies") no more than 10,000 kg of media contaminated with non-acute hazardous waste, 1000 kg of non-acute hazardous waste other than contaminated media, 1 kg of acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste for each process being evaluated for each generated waste stream; and

(II) The mass of each sample shipment does not exceed 10,000 kg; the 10,000 kg quantity may be all media contaminated with non-acute hazardous waste, or may include 2500 kg of media contaminated with acute hazardous waste, 1000 kg of hazardous waste, and 1 kg of acute hazardous waste; and

(III) The sample must be packaged so that it will not leak, spill, or vaporize from its packaging during shipment and the requirements of subitem I or II of this part are met.

I. The transportation of each sample shipment complies with U.S. Department of Transportation (DOT), U.S. Postal Service (USPS), or any other applicable shipping requirements; or

II. If the DOT, USPS, or other shipping requirements do not apply to the shipment of the sample, the following information must accompany the sample:

A. The name, mailing address, and telephone number of the originator of the sample;

B. The name, address, and telephone number of the facility that will perform the treatability study;

C. The quantity of the sample;

D. The date of shipment; and

E. A description of the sample, including its Hazardous Waste Code.

(IV) The sample is shipped to a laboratory or testing facility which is exempt under part 6 of this subparagraph or has an appropriate permit or interim status.

(V) The generator or sample collector maintains the following records for a period ending 3 years after completion of the treatability study:

I. Copies of the shipping documents;

II. A copy of the contract with the facility conducting the treatability study;

III. Documentation showing:

A. The amount of waste shipped under this exemption;

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B. The name, address, and Installation Identification Number of the laboratory or testing facility that received the waste;

C. The date the shipment was made; and

D. Whether or not unused samples and residues were returned to the generator.

(VI) The generator reports the information required under subitem (ii)(V)III of this part in its annual report.

(iii) The Commissioner may grant requests on a case-by-case basis for up to an additional two years for treatability studies involving bioremediation. The Commissioner may grant requests on a case-by-case basis for quantity limits in excess of those specified in items (I) and (II) of this subpart and subpart 6(iv) of this subparagraph, for up to an additional 5000 kg of media contaminated with non-acute hazardous waste, 500 kg of non-acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste and 1 kg of acute hazardous waste:

(I) In response to requests for authorization to ship, store and conduct treatability studies on additional quantities in advance of commencing treatability studies. Factors to be considered in reviewing such requests include the nature of the technology, the type of process (e.g., batch versus continuous), size of the unit undergoing testing (particularly in relation to scale-up considerations), the time/quantity of material required to reach steady state operating conditions, or test design considerations such as mass balance calculations.

(II) In response to requests for authorization to ship, store and conduct treatability studies on additional quantities after initiation or completion of initial treatability studies, when: There has been an equipment or mechanical failure during the conduct of a treatability study; there is a need to verify the results of a previously conducted treatability study; there is a need to study and analyze alternative techniques within a previously evaluated treatment process; or there is a need to do further evaluation of an ongoing treatability study to determine final specifications for treatment.

(III) The additional quantities and timeframes allowed in items (I) and (II) of this subpart are subject to all the provisions in subpart (i) and items (III) through (VI) of subpart (ii) of this part. The generator or sample collector must apply to the Commissioner and provide in writing the following information:

I. The reason why the generator or sample collector requires additional time or quantity of sample for treatability study evaluation and the additional time or quantity needed;

II. Documentation accounting for all samples of hazardous waste from the waste stream which have been sent for or undergone treatability studies including the date each previous sample

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from the waste stream was shipped, the quantity of each previous shipment, the laboratory or testing facility to which it was shipped, what treatability study processes were conducted on each sample shipped, and the available results on each treatability study;

III. A description of the technical modifications or change in specifications which will be evaluated and the expected results;

IV. If such further study is being required due to equipment or mechanical failure, the applicant must include information regarding the reason for the failure or breakdown and also include what procedures or equipment improvements have been made to protect against further breakdowns; and

V. Such other information that the Commissioner considers necessary.

6. Samples Undergoing Treatability Studies at Laboratories and Testing Facilities

Samples undergoing treatability studies and the laboratory or testing facility conducting such treatability studies (to the extent such facilities are not otherwise subject to the requirements under this Rule Chapter) are not subject to any requirement of this Rule Chapter provided that the conditions of subparts (i) through (xi) of this part are met. A mobile treatment unit (MTU) may qualify as a testing facility subject to subparts (i) through (xi) of this part. Where a group of MTUs are located at the same site, the limitations specified in subparts (i) through (xi) of this part apply to the entire group of MTUs collectively as if the group were one MTU.

(i) No less than 45 days before conducting treatability studies, the facility notifies the Commissioner, in writing that it intends to conduct treatability studies under this paragraph.

(ii) The laboratory or testing facility conducting the treatability study has an Installation Identification Number.

(iii) No more than a total of 10,000 kg of "as received" media contaminated with non-acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste or 250 kg of other "as received" hazardous waste is subject to initiation of treatment in all treatability studies in any single day. "As received" waste refers to the waste as received in the shipment from the generator or sample collector.

(iv) The quantity of "as received" hazardous waste stored at the facility for the purpose of evaluation in treatability studies does not exceed 10,000 kg, the total of which can include 10,000 kg of media contaminated with non-acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste, 1000 kg of non-acute hazardous wastes other than contaminated media, and 1 kg of acute hazardous waste. This quantity limitation does not include treatment materials (including nonhazardous solid waste) added to "as received" hazardous waste.

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(v) No more than 90 days have elapsed since the treatability study for the sample was completed, or no more than one year (two years for treatability studies involving bioremediation) have elapsed since the generator or sample collector shipped the sample to the laboratory or testing facility, whichever date first occurs. Up to 500 kg of treated material from a particular waste stream from treatability studies may be archived for future evaluation up to five years from the date of initial receipt. Quantities of materials archived are counted against the total storage limit for the facility.

(vi) The treatability study does not involve the placement of hazardous waste on the land or open burning of hazardous waste.

(vii) The facility maintains records for 3 years following completion of each study that show compliance with the treatment rate limits and the storage time and quantity limits. The following specific information must be included for each treatability study conducted:

(I) The name, address, and Installation Identification Number of the generator or sample collector of each waste sample;

(II) The date the shipment was received;

(III) The quantity of waste accepted;

(IV) The quantity of "as received" waste in storage each day;

(V) The date the treatment study was initiated and the amount of "as received" waste introduced to treatment each day;

(VI) The date the treatability study was concluded;

(VII) The date any unused sample or residues generated from the treatability study were returned to the generator or sample collector or, if sent to a designated facility, the name of the facility and the Installation Identification Number.

(viii) The facility keeps, on-site, a copy of the treatability study contract and all shipping papers associated with the transport of treatability study samples to and from the facility for a period ending 3 years from the completion date of each treatability study.

(ix) The facility prepares and submits a report to the Commissioner by March 15 of each year that estimates the number of studies and the amount of waste expected to be used in treatability studies during the current year, and includes the following information for the previous calendar year:

(I) The name, address, and Installation Identification Number of the facility conducting the treatability studies;

(II) The types (by process) of treatability studies conducted;

(III) The names and addresses of persons for whom studies have been conducted (including their Installation Identification Numbers);

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(IV) The total quantity of waste in storage each day;

(V) The quantity and types of waste subjected to treatability studies;

(VI) When each treatability study was conducted;

(VII) The final disposition of residues and unused sample from each treatability study.

(x) The facility determines whether any unused sample or residues generated by the treatability study are hazardous waste under subparagraph (1)(c) of this Rule and, if so, are subject to Rule Chapter 1200-1-11, unless the residues and unused samples are returned to the sample originator under exemption under part 5 of this subparagraph.

(xi) The facility notifies the Commissioner by letter when the facility is no longer planning to conduct any treatability studies at the site.

7. Dredged material that is not a hazardous waste. Dredged material that is subject to the requirements of a permit that has been issued under 404 of the Federal Water Pollution Control Act (33 U.S.C. 1344) or section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1413) is not a hazardous waste. For this part 7, the following definitions apply:

(i) The term dredged material has the same meaning as defined in 40 CFR 232.2;

(ii) The term permit means:

(I) A permit issued by the U.S. Army Corps of Engineers (Corps) or an approved State under section 404 of the Federal Water Pollution Control Act (33 U.S.C. 1344);

(II) A permit issued by the Corps under section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1413); or

(III) In the case of Corps civil works projects, the administrative equivalent of the permits referred to in items 7(ii)(I) and (II) of this subparagraph, as provided for in Corps regulations (for example, see 33 CFR 336.1, 336.2, and 337.6).

(e) Special Requirements For Hazardous Waste Generated By Conditionally Exempt Small Quantity Generators [40 CFR 261.5]

1. A generator is a conditionally exempt small quantity generator in a calendar month if he generates no more than 100 kilograms of hazardous waste in that month.

2. Except for those wastes identified in parts 5, 6, 7, and 10 of this subparagraph, a conditionally exempt small quantity generator's hazardous wastes are not subject to regulation under Rules 1200-1-11-.03 through .10, provided the generator complies with the requirements of parts 6,7 and 10 of this subparagraph and Rule 1200-1-11-.03(2)(a)2.

3. When making the quantity determinations of this Rule and Rule 1200-1-11-.03, the generator must include all hazardous waste that it generates, except hazardous waste that:

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(i) Is exempt from regulation under parts (d)3 through 6, subparts (f)1(iii), subpart (g)1(i), or subparagraph (h) of this paragraph; or

(ii) Is managed immediately upon generation only in on-site elementary neutralization units, wastewater treatment units, or totally enclosed treatment facilities as defined in Rule 1200-1-11-.01(2)(a); or

(iii) Is recycled, without prior storage or accumulation, only in an on-site process subject to regulation under subpart (f)3(ii) of this paragraph; or

(iv) Is used oil managed under the requirements of subpart (f)1(iv) of this paragraph and Rule 1200-1-11-.11; or

(v) Is spent lead-acid batteries managed under the requirements of Rule 1200-1-11-.09(7); or

(vi) Is universal waste managed under Rule 1200-1-11-.02(1)(j) and Rule 1200-1-11-.12; or

(vii) Is managed immediately upon generation in a collection system (sewer system) where the wastewaters will mix with sanitary wastes at any point before reaching a publicly owned treatment works (POTW).

4. In determining the quantity of hazardous waste generated, a generator need not include:

(i) Hazardous waste when it is removed from on-site storage; or

(ii) Hazardous waste produced by on-site treatment (including reclamation) of his hazardous waste, so long as the hazardous waste that is treated was counted once; or

(iii) Spent materials that are generated, reclaimed, and subsequently reused on-site, so long as such spent materials have been counted once.

5. If a generator generates acute hazardous waste in a calendar month in quantities greater than set forth below, all quantities of that acute hazardous waste are subject to full regulation under Rule Chapter 1200-1-11:

(i) A total of one kilogram of acute hazardous wastes listed in subparagraph (4) (b), subparagraph (4) (c), or part (4) (d) 5 of this Rule.

(ii) A total of 100 kilograms of any residue or contaminated soil, waste, or other debris resulting from the cleanup of a spill, into or on any land or water, of any acute hazardous wastes listed in subparagraph (4) (b), subparagraph (4) (c), or part (4) (d) 5 of this Rule.

(Comment: “Full regulation” means those regulations applicable to generators of greater than 1000 kg of non-acutely hazardous waste in a calendar month.)

6. In order for acute hazardous wastes generated by a generator of acute hazardous wastes in quantities equal to or less than those set forth in subparts 5 (i) or (ii) of this subparagraph to be excluded under this subparagraph from full regulation, the generator must comply with the following requirements:

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(i) The generator must perform the hazardous waste determination of Rule 1200-1-11-.03(1)(b) and keep records thereof as required by Rule 1200-1-11-.03(5)(a)3;

(ii) The generator may accumulate acute hazardous waste on-site. If he accumulates at any time acute hazardous wastes in quantities greater than those set forth in subparts 5 (i) or 5 (ii) of this subparagraph, all of those accumulated wastes are subject to regulation under Rules Chapter 1200-1-11. The time period of Rule 1200-1-11-.03(4)(e)2, for accumulation of wastes on-site, begins when the accumulated wastes exceed the applicable exclusion limit.

(iii) A conditionally exempt small quantity generator may either treat or dispose of his acute hazardous waste in an on-site facility or ensure delivery to an off-site treatment, storage or disposal facility, either of which, if located in the U.S., is:

(I) Permitted under Rule 1200-1-11-.07;

(II) In interim status under Rule 1200-1-11-.05 and 1200-1-11-.07;

(III) Authorized to manage hazardous waste by a State with a hazardous waste management program approved under 40 CFR Part 271;

(IV) Permitted, licensed, or registered by a State to manage municipal solid waste and, if managed in a municipal solid waste landfill, is subject to 40 CFR Part 258;

(V) Permitted, licensed, or registered by a State to manage non-municipal non-hazardous waste and, if managed in a non-municipal non-hazardous waste disposal unit after January 1, 1998, is subject to the requirements in 40 CFR Parts 257.5 through 257.30; or

(VI) A facility which:

I. Beneficially uses or reuses, or legitimately recycles or reclaims its waste; or

II. Treats its waste prior to beneficial use or reuse, or legitimate recycling or reclamation; or

(VII) For universal waste managed under Rule 1200-1-11-.12, a universal waste handler or destination facility subject to the requirements of Rule 1200-1-11-.12.

7. In order for hazardous waste generated by a conditionally exempt small quantity generator in quantities of less than 100 kilograms of hazardous waste during a calendar month to be excluded from full regulation under this subparagraph, the generator must comply with the following requirements:

(i) The conditionally exempt small quantity generator must perform the hazardous waste determination of Rule 1200-1-11-.03(1)(b) and keep records thereof as required by Rule 1200-1-11-.03(5)(a)3.

(ii) The conditionally exempt small quantity generator may accumulate hazardous waste on-site. If he accumulates at any time more than a total of 1000 kilograms of his hazardous wastes, all of those accumulated wastes are subject to

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regulation under the special provisions of Rule 1200-1-11-.03 applicable to generators of between 100 kg and 1000 kg of hazardous waste in a calendar month as well as the requirements of Rule 1200-1-11-.04 through 1200-1-11-.10. The time period of Rule 1200-1-11-.03(4)(e)6 for accumulation of wastes on-site begins for a conditionally exempt small quantity generator when the accumulated wastes exceed 1000 kilograms;

(iii) A conditionally exempt small quantity generator may either treat or dispose of his hazardous waste in an on-site facility or ensure delivery to an off-site treatment, storage or disposal facility, either of which, if located in the U.S., is:

(I) Permitted under Rule 1200-1-11-.07;

(II) In interim status under Rules 1200-1-11-.05 and 1200-1-11-.07;

(III) Authorized to manage hazardous waste by a State with a hazardous waste management program approved under 40 CFR Part 271;

(IV) Permitted, licensed, or registered by a State to manage municipal solid waste and, if managed in a municipal solid waste landfill, is subject to 40 CFR Part 258;

(V) Permitted, licensed, or registered by a State to manage non-municipal non-hazardous waste and, if managed in a non-municipal non-hazardous waste disposal unit after January 1, 1998, is subject to the requirements in 40 CFR Parts 257.5 through 257.30; or

(VI) A facility which:

I. Beneficially uses or reuses or legitimately recycles or reclaims its waste; or

II. Treats its waste prior to beneficial use or reuse, or legitimate recycling or reclamation; or

(VII) For universal waste managed under Rule 1200-1-11-.12, a universal waste handler or destination facility subject to the requirements of Rule 1200-1-11-.12.

8. Hazardous waste subject to the reduced requirements of this subparagraph may be mixed with non-hazardous waste and remain subject to these reduced requirements even though the resultant mixture exceeds the quantity limitations identified in this subparagraph, unless the mixture meets any of the characteristics of hazardous waste identified in paragraph (3) of this Rule.

9. If any person mixes a solid waste with a hazardous waste that exceeds a quantity exclusion level of this subparagraph, the mixture is subject to full regulation.

10. If a conditionally exempt small quantity generator's wastes are mixed with used oil, the mixture is subject to Rule 1200-1-11-.11. Any material produced from such a mixture by processing, blending, or other treatment is also so regulated.

(f) Requirements for recyclable material [40 CFR 261.6]

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1. (i) Hazardous wastes that are recycled are subject to the requirements for generators, transporters, and storage facilities of parts 2 and 3 of this subparagraph, except for the materials listed in subparts (ii) and (iii) of this part. Hazardous wastes that are recycled will be known as "recyclable materials."

(ii) The following recyclable materials are not subject to the requirements of this subparagraph but are regulated under paragraphs (3), (6), (7) and (8) of Rule 1200-1-11-.09 and all applicable provisions in Rule 1200-1-11-.07:

(I) Recyclable materials used in a manner constituting disposal (Rule 1200-1-11-.09(3);

(II) Hazardous wastes burned for energy recovery in boilers and industrial furnaces that are not regulated under paragraph (15) of Rule 1200-1-11-.05 or Rule 1200-1-11-.06, (Rule 1200-1-11-.09(8));

(III) Recyclable materials from which precious metals are reclaimed (Rule 1200-1-11-.09(6));

(IV) Spent lead-acid batteries that are being reclaimed (Rule 1200-1-11-.09(7).

(iii) The following recyclable materials are not subject to regulation under Rule Chapter 1200-1-11:

(I) Industrial ethyl alcohol that is reclaimed except that, unless provided otherwise in an international agreement as specified in Rule 1200-1-11-.03(6)(i):

I. A person initiating a shipment for reclamation in a foreign country, and any intermediary arranging for the shipment, must comply with the requirements applicable to a primary exporter in Rule 1200-1-11-.03(6)(d), (g)1(i)-(iv) and (vi), (g)2, and (h), export such materials only upon consent of the receiving country and in conformance with the EPA Acknowledgment of Consent as defined in Rule 1200-1-11-.03(6), and provide a copy of the EPA Acknowledgment of Consent to the shipment to the transporter transporting the shipment for export;

II. Transporters transporting a shipment for export may not accept a shipment if he knows the shipment does not conform to the EPA Acknowledgment of Consent, must ensure that a copy of the EPA Acknowledgment of Consent accompanies the shipment and must ensure that it is delivered to the facility designated by the person initiating the shipment.

(II) Scrap metal that is not excluded under subpart (d)1(xv) of this paragraph;

(III) Fuels produced from the refining of oil-bearing hazardous waste along with normal process streams at a petroleum refining facility if such wastes result from normal petroleum refining, production, and transportation practices (this exemption does not apply to fuels

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produced from oil recovered from oil-bearing hazardous waste, where such recovered oil is already excluded under Rule 1200-1-11-.02(1)(d)1(xii));

(IV) I. Hazardous waste fuel produced from oil-bearing hazardous wastes from petroleum refining, production, or transportation practices, or produced from oil reclaimed from such hazardous wastes, where such hazardous wastes are reintroduced into a process that does not use distillation or does not produce products from crude oil so long as the resulting fuel meets the used oil specification under Rule 1200-1-11-.11(2)(b) and so long as no other hazardous wastes are used to produce the hazardous waste fuel;

II. Hazardous waste fuel produced from oil-bearing hazardous waste from petroleum refining production, and transportation practices, where such hazardous wastes are reintroduced into a refining process after a point at which contaminants are removed, so long as the fuel meets the used oil fuel specification under Rule 1200-1-11-.11(2)(b); and

III. Oil reclaimed from oil-bearing hazardous wastes from petroleum refining, production, and transportation practices, which reclaimed oil is burned as a fuel without reintroduction to a refining process, so long as the reclaimed oil meets the used oil fuel specification under Rule 1200-1-11-.11(2)(b).

(iv) Used oil that is recycled and is also a hazardous waste solely because it exhibits a hazardous characteristic is not subject to the requirements of Rule 1200-1-11-.01 through .06, .09, and .10, but is regulated under Rule 1200-1-11-.11. Used oil that is recycled includes any used oil which is reused, following its original use, for any purpose (including the purpose for which the oil was originally used). Such term includes, but is not limited to, oil which is re-refined, reclaimed, burned for energy recovery, or reprocessed.

(v) (Reserved) [40 CFR 261.6(a)(5)]

2. Generators and transporters of recyclable materials are subject to the applicable requirements of Rule 1200-1-11-.03 and .04, except as provided in part 1 of this subparagraph.

3. (i) Owners and operators of facilities that store recyclable materials before they are recycled are regulated under all applicable provisions of paragraphs (1) through (12), (27), (28) and (29) of Rule 1200-1-11-.05 and paragraphs (1) through (12), (30), (31) and (32) of Rule 1200-1-11-.06, and under Rules 1200-1-11-.07, .09, and .10, and the notification requirements under Rule 1200-1-11-.07(2)(b) and (d), except as provided in part 1 of this subparagraph. (The recycling process itself is exempt from regulation except as provided in Rule 1200-1-11-.02(1)(f)4.)

(ii) Owners or operators of facilities that recycle recyclable materials without storing them before they are recycled are subject to the following requirements, except as provided in part 1 of this subparagraph:

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(I) Such owners or operators must notify the Division Director of their activities using forms provided by the Department and completed per accompanying instructions;

(II) Such owners or operators must comply with Rule 1200-1-11-.05(5)(b) and (c) (dealing with the use of the manifest and manifest discrepancies);

(III) Rule 1200-1-11-.02(1)(f)4.

4. Owners or operators of facilities subject to the permitting requirements with hazardous waste management units that recycle hazardous wastes are subject to the requirements of paragraphs (27) and (28) of Rule 1200-1-11-.05 and paragraphs (30) and (31) of Rule 1200-1-11-.06.

5. Generators of recyclable materials must notify the Department describing the recyclable materials they generate, how such materials are generated, and how they are managed. Such notifications must be filed with the Department within 90 days of the effective date of this part (for existing generators) or within 90 days of the date a generator first becomes subject to this subparagraph (for new generators). Such notification must be submitted on forms provided by the Department. The form must be completed according to the accompanying instructions.

(g) Residues of hazardous waste in empty containers [40 CFR 261.7]

1. (i) Any hazardous waste remaining in either (1) an empty container or (2) an inner liner removed from an empty container, as defined in part 2 of this subparagraph, is not subject to regulation under these Rules,.

(ii) Any hazardous waste in either (1) a container that is not empty or (2) an inner liner removed from a container that is not empty, as defined in part 2 of this subparagraph, is subject to regulation under these Rules.

2. (i) A container or an inner liner removed from a container that has held any hazardous waste, except a waste that is a compressed gas or that is identified as an acute hazardous waste listed in subparagraph (4)(b), subparagraph (4)(c), or part (4)(d)5 of this Rule is empty if:

(I) All wastes have been removed that can be removed using the practices commonly employed to remove materials from that type of container, e.g., pouring, pumping, and aspirating, and

(II) No more than 2.5 centimeters (one inch) of residue remain on the bottom of the container or inner liner, or

(III) I. No more than 3 percent by weight of the total capacity of the container remains in the container or inner liner if the container is less than or equal to 110 gallons in size, or

II. No more than 0.3 percent by weight of the total capacity of the container remains in the container or inner liner if the container is greater than 110 gallons in size.

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(ii) A container that has held a hazardous waste that is a compressed gas is empty when the pressure in the container approaches atmospheric.

(iii) A container or an inner liner removed from a container that has held an acute hazardous waste listed in subparagraph (4)(b), subparagraph (4)(c), or part (4)(d)5 of this subparagraph is empty if:

(I) The container or inner liner has been triple rinsed using a solvent capable of removing the commercial chemical product or manufacturing chemical intermediate;

(II) The container or inner liner has been cleaned by another method that has been shown in the scientific literature, or by tests conducted by the generator, to achieve equivalent removal; or

(III) In the case of a container, the inner liner that prevented contact of the commercial chemical product or manufacturing chemical intermediate with the container, has been removed.

(h) PCB wastes regulated under Toxic Substance Control Act [40 CFR 261.8]

The disposal of PCB-containing dielectric fluid and electric equipment containing such fluid authorized for use and regulated under part 761 and that are hazardous only because they fail the test for the Toxicity Characteristic (Hazardous Waste Codes D018 through D043 only) are exempt from regulation under Rule 1200-1-11-.02 through .08 and .10.

(i) Management of Excluded Wastes

Nothing in these Rules shall exclude persons whose waste is nonhazardous or otherwise excluded from these Rules from the requirements of the "Tennessee Solid Waste Disposal Act" (T.C.A. §68-211-101 et seq.) and pursuant regulations or from other applicable State, local or Federal laws.

(j) Requirements for Universal Waste [40 CFR 261.9]

The wastes listed in Rule 1200-1-11-.12(1)(a) are exempt from regulation under Rules 1200-1-11-.03 through .07, .09 and .10 except as specified in Rule 1200-1-11-.12 and, therefore, are not fully regulated as hazardous waste.

(2) Criteria for Identifying the Characteristics of Hazardous Waste and for Listing Hazardous Waste [40 CFR 261 Subpart B]

(a) Criteria for Identifying the Characteristics of Hazardous Waste [40 CFR 261.10]

1. The Board shall identify and define a characteristic of hazardous waste in paragraph (3) only upon determining that:

(i) A solid waste that exhibits the characteristic may:

(I) Cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or

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(II) Pose a substantial present or potential hazard to human health or the environment when it is improperly treated, stored, transported, disposed of or otherwise managed; and

(ii) The characteristic can be:

(I) Measured by an available standardized test method which is reasonably within the capability of generators of solid waste or private sector laboratories that are available to serve generators of solid waste; or

(II) Reasonably detected by generators of solid waste through their knowledge of their waste.

(b) Criteria for Listing Hazardous Waste [40 CFR 261.11]

1. The Board shall list a solid waste as a hazardous waste only upon determining that the solid waste meets one of the following criteria:

(i) It exhibits any of the characteristics of hazardous waste identified in paragraph (3).

(ii) It has been found to be fatal to humans in low doses or, in the absence of data on human toxicity, it has been shown in studies to have an oral LD 50 toxicity (rat) of less than 50 milligrams per kilogram, an inhalation LC 50 toxicity (rat) of less than 2 milligrams per liter, or a dermal LD 50 toxicity (rabbit) of less than 200 milligrams per kilogram or is otherwise capable of causing or significantly contributing to an increase in serious irreversible, or incapacitating reversible, illness. (Waste listed in accordance with these criteria will be designated Acute Hazardous Waste.)

(iii) It contains any of the toxic constituents listed in paragraph (5) Appendix VIII and, after considering the following factors, the Commissioner concludes that the waste is capable of posing a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of, or otherwise managed:

(I) The nature of the toxicity presented by the constituent;

(II) The concentration of the constituent in the waste;

(III) The potential of the constituent or any toxic degradation product of the constituent to migrate from the waste into the environment under the types of improper management considered in item (VII) below;

(IV) The persistence of the constituent or any toxic degradation product of the constituent;

(V) The potential for the constituent or any toxic degradation product of the constituent to degrade into non-harmful constituents and the rate of degradation;

(VI) The degree to which the constituent or any degradation product of the constituent bioaccumulates in ecosystems;

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(VII) The plausible types of improper management to which the waste could be subjected;

(VIII) The quantities of the waste generated at individual generation sites or on a regional or national basis;

(IX) The nature and severity of the human health and environmental damage that has occurred as a result of the improper management of wastes containing the constituent;

(X) Action taken by other governmental agencies or regulatory programs based on the health or environmental hazard posed by the waste or waste constituent; and

(XI) Such other factors as may be appropriate.

(Note: Substances will be listed on Appendix VIII only if they have been shown in scientific studies to have toxic, carcinogenic, mutagenic or teratogenic effects on humans or other life forms.)

(Note: Wastes listed in accordance with these criteria will be designated Toxic wastes.)

2. The Board may list classes or types of solid waste as hazardous waste if it has reason to believe that individual wastes, within the class or type of waste, typically or frequently are hazardous under the definition of hazardous waste found in Section 68-212-104 of the Act.

3. The Board will use the criteria for listing specified in this subparagraph to establish the exclusion limits referred to in part (1)(e)3 of this Rule.

(3) Characteristics of Hazardous Waste [40 CFR 261 Subpart C]

(a) General [40 CFR 261.20]

1. A solid waste, as defined in subparagraph (1)(b) of this Rule, which is not excluded from regulation as a hazardous waste under part (1)(d)2 of this Rule, is a hazardous waste if it exhibits any of the characteristics identified in this paragraph.

(Comment: Rule 1200-1-11-.03(1)(b) sets forth the generator's responsibility to determine whether his waste exhibits one or more of the characteristics identified in this paragraph.)

2. A hazardous waste which is identified by a characteristic in this paragraph is assigned every Hazardous Waste Code that is applicable as set forth in this paragraph. This code must be used in complying with the notification requirements of Rule 1200-1-11-.03(2) and all applicable recordkeeping and reporting requirements under Rules 1200-1-11-.03 through .07 and Rule 1200-1-11-.10.

3. For purposes of this paragraph, the Commissioner will consider a sample obtained using any of the applicable sampling methods specified in paragraph (5) Appendix I to be a representative sample within the meaning of Rule 1200-1-11-.01.

(Comment: Since the appendix I sampling methods are not being formally adopted by the Board, a person who desires to employ an alternative sampling method is not required to demonstrate the equivalency of his method under the procedures set forth in Rule 1200-1-11-.01(3).)

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(b) Characteristic of Ignitability [40 CFR 261.21]

1. A solid waste exhibits the characteristic of ignitability if a representative sample of the waste has any of the following properties:

(i) It is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume, and has flash point less than 60°C (140°F), as determined by a Pensky-Martens Closed Cup Tester, using the test method specified in ASTM Standard D-93-79 or D-93-80 (see Rule 1200-1-11-.01(2)(b)), or a Setaflash Closed Cup Tester, using the test method specified in ASTM Standard D-3278-78 (see Rule 1200-1-11-.01(2)(b)), or as determined by an equivalent test method approved by the Commissioner under procedures set forth in Rule 1200-1-11-.01(3).

(ii) It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard.

(iii) It is an ignitable compressed gas as defined in 49 CFR 173.300 (as that Federal regulation exists on the effective date of these Rules) and as determined by the test methods described in that regulation or equivalent test methods approved by the Commissioner under Rule 1200-1-11-.01(3).

(iv) It is an oxidizer as defined in 49 CFR 173.127 (as that Federal regulation exists on the effective date of these Rules).

2. A solid waste that exhibits the characteristic of ignitability has the Hazardous Waste Code of D001.

(c) Characteristic of Corrosivity [40 CFR 261.22]

1. A solid waste exhibits the characteristic of corrosivity if a representative sample of the waste has either of the following properties:

(i) It is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter using Method 9040 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, listed in Rule 1200-1-11-.01(2)(b).

(ii) It is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55°C (130°F) as determined by the test method specified in NACE (National Association of Corrosion Engineers) Standard TM-01-69 as standardized in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, listed in Rule 1200-1-11-.01(2)(b).

2. A solid waste that exhibits the characteristic of corrosivity has the Hazardous Waste Code of D002.

(d) Characteristic of Reactivity [40 CFR 261.23]

1. A solid waste exhibits the characteristic of reactivity if a representative sample of the waste has any of the following properties:

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(i) It is normally unstable and readily undergoes violent change without detonating.

(ii) It reacts violently with water.

(iii) It forms potentially explosive mixtures with water.

(iv) When mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.

(v) It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.

(vi) It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement.

(vii) It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure.

(viii) It is a forbidden explosive as defined in 49 CFR 173.51, or a Class A explosive as defined in 49 CFR 173.53 or a Class B explosive as defined in 49 CFR 173.88 (as those Federal regulations exist on the effective date of these Rules).

2. A solid waste that exhibits the characteristic of reactivity has the Hazardous Waste Code of D003.

(e) Toxicity Characteristic [40 CFR 261.24]

1. A solid waste (except manufactured gas plant waste) exhibits the characteristic of toxicity if, using the Toxicity Characteristic Leaching Procedure, test Method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, listed in Rule 1200-1-11-.01(2)(b), the extract from a representative sample of the waste contains any of the contaminants listed in table 1 at the concentration equal to or greater than the respective value given in that table. Where the waste contains less than 0.5 percent filterable solids, the waste itself, after filtering using the methodology outlined in Method 1311, is considered to be the extract for the purpose of this subparagraph.

2. A solid waste that exhibits the characteristic of toxicity has the Hazardous Waste Code specified in Table I which corresponds to the toxic contaminant causing it to be hazardous.

Table 1. – Maximum Concentration of Contaminants for the Toxicity Characteristic

HW Code No. [1]	Contaminant	CAS No. [2]	Regulatory Level (mg/L)
D004	Arsenic	7440-38-2	5.0
D005	Barium	7440-39-3	100.0
D018	Benzene	71-43-2	0.5
D006	Cadmium	7440-43-9	1.0

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D019	Carbon tetrachloride	56-23-5	0.5
D020	Chlordane	57-74-9	0.03
D021	Chlorobenzene	108-90-7	100.0
D022	Chloroform	67-66-3	6.0
D007	Chromium	7440-47-3	5.0
D023	o-Cresol	95-48-7	[4] 200.0
D024	m-Cresol	108-39-4	[4] 200.0
D025	p-Cresol	106-44-5	[4] 200.0
D026	Cresol		[4] 200.0
D016	2,4-D	94-75-7	10.0
D027	1,4-Dichlorobenzene	106-46-7	7.5
D028	1,2-Dichloroethane	107-06-2	0.5
D029	1,1-Dichloroethylene	75-35-4	0.7
D030	2,4-Dinitrotoluene	121-14-2	[3] 0.13
D012	Endrin	72-20-8	0.02
D031	Heptachlor (and its epoxide)	76-44-8	0.008
D032	Hexachlorobenzene	118-74-1	[3] 0.13
D033	Hexachlorobutadiene	87-68-3	0.5
D034	Hexachloroethane	67-72-1	3.0
D008	Lead	7439-92-1	5.0
D013	Lindane	58-89-9	0.4
D009	Mercury	7439-97-6	0.2
D014	Methoxychlor	72-43-5	10.0
D035	Methyl ethyl ketone	78-93-3	200.0
D036	Nitrobenzene	98-95-3	2.0
D037	Pentachlorophenol	87-86-5	100.0
D038	Pyridine	110-86-1	[3] 5.0
D010	Selenium	7782-49-2	1.0
D011	Silver	7440-22-4	5.0
D039	Tetrachloroethylene	127-18-4	0.7
D015	Toxaphene	8001-35-2	0.5
D040	Trichloroethylene	79-01-6	0.5
D041	2,4,5-Trichlorophenol	95-95-4	400.0

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D042	2,4,6-Trichlorophenol	88-06-2	2.0
D017	2,4,5-TP (Silvex)	93-72-1	1.0
D043	Vinyl chloride	75-01-4	0.2

FOOTNOTE: [1]Hazardous waste number.
FOOTNOTE: [2]Chemical abstracts service number.
FOOTNOTE: [3]Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory level.
FOOTNOTE: [4]If o-, m-, and p-Cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used. The regulatory level of total cresol is 200 mg/l.

(4) Lists of Hazardous Wastes [40 CFR 261 Subpart D]

(a) General [40 CFR 261.30]

1. A solid waste is a hazardous waste if it is listed in this paragraph, unless it has been excluded from this list under Rule 1200-1-11-.01(3).

2. The Board will indicate its basis for listing the classes or types of wastes listed in this paragraph by employing one or more of the following Hazard Codes:

Ignitable Waste	(I)
Corrosive Waste	(C)
Reactive Waste	(R)
Toxicity Characteristic Waste	(E)
Acute Hazardous Waste	(H)
Toxic Waste	(T)

Paragraph (5) Appendix VII identifies the constituent which caused the Board to list the waste as a Toxicity Characteristic Waste (E) or Toxic Waste (T) in subparagraphs (b) and (c) of this paragraph.

3. Each hazardous waste listed in this paragraph is assigned a Hazardous Waste Code which precedes the name of the waste. This Code must be used in complying with the notification requirements of Rule 1200-1-11-.03(2) and certain recordkeeping and reporting requirements under Rules 1200-1-11-.03 through .07 and Rules 1200-1-11-.10.

4. The following hazardous wastes listed in subparagraph (b) or (c) of this paragraph are subject to the exclusion limits for acutely hazardous wastes established in subparagraph (1) (e) of this Rule: Hazardous Wastes Codes F020, F021, F022, F023, F026, and F027.

(b) Hazardous Wastes from Non-specific Sources [40 CFR 261.31]

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1. The following solid wastes are listed hazardous wastes from non-specific sources unless they are excluded under subparagraphs (a) and (c) of Rule 1200-1-11-.01(3) and listed in paragraph (5) Appendix IX.

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Industry and Hazardous Waste Code	Hazardous Waste	Hazard Code
Generic:		
F001	The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F002	The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane, and 1,1,2-trichloroethane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those listed in F001, F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F003	The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and, a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(I)
F004	The following spent non-halogenated solvents: Cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F005	The following spent non-halogenated solvents: Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(I,T)
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.	(T)
F007	Spent cyanide plating bath solutions from electroplating operations.	(R, T)
F008	Plating bath residues from the bottom of plating baths from electroplating operations	(R, T)

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	where cyanides are used in the process.	
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.	(R, T)
F010	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.	(R, T)
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.	(R, T)
F012	Quenching waste water treatment sludges from metal heat treating operations where cyanides are used in the process.	(T)
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process.	(T)
F020	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. (This listing does not include wastes from the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol.).	(H)
F021	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of pentachlorophenol, or of intermediates used to produce its derivatives.	(H)
F022	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzenes under alkaline conditions.	(H)
F023	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- and tetrachlorophenols. (This listing does not include wastes from equipment used only for the production or use of Hexachlorophene from highly purified 2,4,5-trichlorophenol.).	(H)
F024	Process wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. (This listing does not include wastewaters, wastewater treatment sludges, spent catalysts, and wastes listed in subparagraph (b) or (c) of this paragraph.).	(T)
F025	Condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution.	(T)
F026	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the manufacturing use (as a reactant, chemical intermediate, or component in a	(H)

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	formulating process) of tetra-, penta-, or hexachlorobenzene under alkaline conditions.	
F027	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing Hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.).	(H)
F028	Residues resulting from the incineration or thermal treatment of soil contaminated with Hazardous Waste Codes F020, F021, F022, F023, F026, and F027.	(T)
F032	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations (except potentially cross-contaminated wastes that have had the F032 waste code deleted in accordance with subparagraph (f) of this paragraph or potentially cross-contaminated wastes that are otherwise currently regulated as hazardous wastes (i.e., F034 or F035), and where the generator does not resume or initiate use of chlorophenolic formulations). This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol	(T)
F034	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol	(T)
F035	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol	(T)
F037	Petroleum refinery primary oil/water/solids separation sludge-Any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oil cooling wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in oil/water/solids separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludge generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges generated in aggressive biological treatment units as defined in subpart 2(ii) of this subparagraph (including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and K051 wastes are not included in this listing. This listing does include residuals generated from processing or recycling oil-bearing hazardous secondary materials excluded under item (1)(d)1(xii)(I) of this Rule, if those residuals are to be disposed of.	(T)
F038	Petroleum refinery secondary (emulsified) oil/water/solids separation sludge-Any sludge and/or float generated from the physical and/or chemical separation of oil/water/solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and	(T)

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	floats generated in: induced air flotation (IAF) units, tanks and impoundments, and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges and floats generated in aggressive biological treatment units as defined in subpart 2(ii) of this paragraph (including sludges and floats generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and F037, K048, and K051 wastes are not included in this listing. This listing does include residuals generated from processing or recycling oil-bearing hazardous secondary materials excluded under .02(1)(d)1(xii)(I), if those residuals are to be disposed of.	
F039	Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous under this paragraph. (Leachate resulting from the disposal of one or more of the following Hazardous Wastes and no other Hazardous Wastes retains its Hazardous Waste Code(s): F020, F021, F022, F026, F027, and/or F028.).	(T)

2. Listing Specific Definitions:

(i) For the purposes of the F037 and F038 listings, oil/water/solids is defined as oil and/or water and/or solids.

(ii) (I) For the purposes of the F037 and F038 listings, aggressive biological treatment units are defined as units which employ one of the following four treatment methods: activated sludge; trickling filter; rotating biological contactor for the continuous accelerated biological oxidation of wastewaters; or high-rate aeration. High-rate aeration is a system of surface impoundments or tanks, in which intense mechanical aeration is used to completely mix the wastes, enhance biological activity, and (I) the units employs a minimum of 6 hp per million gallons of treatment volume; and either (II) the hydraulic retention time of the unit is no longer than 5 days; or (III) the hydraulic retention time is no longer than 30 days and the unit does not generate a sludge that is a hazardous waste by the Toxicity Characteristic.

(II) Generators and treatment, storage and disposal facilities have the burden of proving that their sludges are exempt from listing as F037 and F038 wastes under this definition. Generators and treatment, storage and disposal facilities must maintain, in their operating or other onsite records, documents and data sufficient to prove that: (I) the unit is an aggressive biological treatment unit as defined in this part; and (II) the sludges sought to be exempted from the definitions of F037 and/or F038 were actually treated in the aggressive biological treatment unit.

(iii) (I) For the purposes of the F037 listing, sludges are considered to be generated at the moment of deposition in the unit, where deposition is defined as at least a temporary cessation of lateral particle movement.

(II) For the purposes of the F038 listing,

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I. Sludges are considered to be generated at the moment of deposition in the unit, where deposition is defined as at least a temporary cessation of lateral particle movement and

II. Floats are considered to be generated at the moment they are formed in the top of the unit.

(c) Hazardous Wastes from Specific Sources [40 CFR 261.32]

The following solid wastes are listed hazardous wastes from specific sources unless they are excluded under subparagraphs (a) and (c) of Rules 1200-1-11-.01(3) and listed in paragraph (5) Appendix IX.

Industry and Hazardous Waste Code	Hazardous Waste	Hazard Code
Wood preservation:		
K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol.	(T)
Inorganic pigments:		
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.	(T)
K003	Wastewater treatment sludge from the production of molybdate orange pigments.	(T)
K004	Wastewater treatment sludge from the production of zinc yellow pigments.	(T)
K005	Wastewater treatment sludge from the production of chrome green pigments.	(T)
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated).	(T)
K007	Wastewater treatment sludge from the production of iron blue pigments.	(T)
K008	Oven residue from the production of chrome oxide green pigments.	(T)
Organic chemicals:		
K009	Distillation bottoms from the production of acetaldehyde from ethylene.	(T)
K010	Distillation side cuts from the production of acetaldehyde from ethylene.	(T)
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile.	(R, T)
K013	Bottom stream from the acetonitrile column in the production of acrylonitrile.	(R, T)

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K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile.	(T)
K015	Still bottoms from the distillation of benzyl chloride.	(T)
K016	Heavy ends or distillation residues from the production of carbon tetrachloride.	(T)
K017	Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.	(T)
K018	Heavy ends from the fractionation column in ethyl chloride production.	(T)
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.	(T)
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.	(T)
K021	Aqueous spent antimony catalyst waste from fluoromethanes production.	(T)
K022	Distillation bottom tars from the production of phenol/acetone from cumene.	(T)
K023	Distillation light ends from the production of phthalic anhydride from naphthalene.	(T)
K024	Distillation bottoms from the production of phthalic anhydride from naphthalene.	(T)
K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene.	(T)
K026	Stripping still tails from the production of methyl ethyl pyridines.	(T)
K027	Centrifuge and distillation residues from toluene diisocyanate production.	(R, T)
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane.	(T)
K029	Waste from the product steam stripper in the production of 1,1,1-trichloroethane.	(T)
K030	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene.	(T)
K083	Distillation bottoms from aniline production.	(T)
K085	Distillation or fractionation column bottoms from the production of chlorobenzenes.	(T)
K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene.	(T)
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene.	(T)
K095	Distillation bottoms from the production of 1,1,1-trichloroethane.	(T)
K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.	(T)

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K103	Process residues from aniline extraction from the production of aniline.	(T)
K104	Combined wastewater streams generated from nitrobenzene/aniline production.	(T)
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.	(T)
K107	Column bottoms from product separation from the production of 1,1-dimethyl-hydrazine (UDMH) from carboxylic acid hydrazines.	(C,T)
K108	Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(I,T)
K109	Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(T)
K110	Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(T)
K111	Product washwaters from the production of dinitrotoluene via nitration of toluene.	(C,T)
K112	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K113	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K114	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine.	(T)
K117	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene.	(T)
K118	Spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	(T)
K136	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	(T)
K149	Distillation bottoms from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups, (This waste does not include still bottoms from the distillation of benzyl chloride.).	(T)
K150	Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.	(T)

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K151	Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of wastewaters from the production of alpha-(or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.	(T)
K156	Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)	(T)
K157	Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)	(T)
K158	Bag house dusts and filter/separation solids from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.).	(T)
K159	Organics from the treatment of thiocarbamate wastes	(T)
K161	Purification solids (including filtration, evaporation, and centrifugation solids), bag house dust and floor sweepings from the production of dithiocarbamate acids and their salts. (This listing does not include K125 or K126.)	(R,T)
K174	Wastewater treatment sludges from the production of ethylene dichloride or vinyl chloride monomer (including sludges that result from commingled ethylene dichloride or vinyl chloride monomer wastewater and other wastewater), unless the sludges meet the following conditions: (i) they are disposed of in a subtitle C or non-hazardous landfill licensed or permitted by the state or federal government; (ii) they are not otherwise placed on the land prior to final disposal; and (iii) the generator maintains documentation demonstrating that the waste was either disposed of in an on-site landfill or consigned to a transporter or disposal facility that provided a written commitment to dispose of the waste in an off-site landfill. Respondents in any action brought to enforce the requirements of subtitle C must, upon a showing by the government that the respondent managed wastewater treatment sludges from the production of vinyl chloride monomer or ethylene dichloride, demonstrate that they meet the terms of the exclusion set forth above. In doing so, they must provide appropriate documentation (e.g., contracts between the generator and the landfill owner/operator, invoices documenting delivery of waste to landfill, etc.) that the terms of the exclusion were met.	(T)
K175	Wastewater treatment sludges from the production of vinyl chloride monomer using mercuric chloride catalyst in an acetylene-based process.	(T)
Inorganic chemicals:		
K071	Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used.	(T)
K073	Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production.	(T)

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K106	Wastewater treatment sludge from the mercury cell process in chlorine production.	(T)
K176	Baghouse filters from the production of antimony oxide, including filters from the production of intermediates (e. g., antimony metal or crude antimony oxide).	(E)
K177	Slag from the production of antimony oxide that is speculatively accumulated or disposed, including slag from the production of intermediates (e. g., antimony metal or crude antimony oxide).	(T)
K178	Residues from manufacturing and manufacturing-site storage of ferric chloride from acids formed during the production of titanium dioxide using the chloride-ilmenite process.	(T)
Pesticides:		
K031	By-product salts generated in the production of MSMA and cacodylic acid.	(T)
K032	Wastewater treatment sludge from the production of chlordane.	(T)
K033	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane.	(T)
K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane.	(T)
K035	Wastewater treatment sludges generated in the production of creosote.	(T)
K036	Still bottoms from toluene reclamation distillation in the production of disulfoton.	(T)
K037	Wastewater treatment sludges from the production of disulfoton.	(T)
K038	Wastewater from the washing and stripping of phorate production.	(T)
K039	Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate.	(T)
K040	Wastewater treatment sludge from the production of phorate.	(T)
K041	Wastewater treatment sludge from the production of toxaphene.	(T)
K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T.	(T)
K043	2,6-Dichlorophenol waste from the production of 2,4-D.	(T)
K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane.	(T)
K098	Untreated process wastewater from the production of toxaphene.	(T)
K099	Untreated wastewater from the production of 2,4-D.	(T)
K123	Process wastewater (including supernates, filtrates, and washwaters) from the production of ethylenebisdithiocarbamic acid and its salt.	(T)
K124	Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts.	(C, T)

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K125	Filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts.	(T)
K126	Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts.	(T)
K131	Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide.	(C,T)
K132	Spent absorbent and wastewater separator solids from the production of methyl bromide.	(T)
Explosives:		
K044	Wastewater treatment sludges from the manufacturing and processing of explosives.	(R)
K045	Spent carbon from the treatment of wastewater containing explosives.	(R)
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.	(T)
K047	Pink/red water from TNT operations.	(R)
Petroleum refining:		
K048	Dissolved air flotation (DAF) float from the petroleum refining industry.	(T)
K049	Slop oil emulsion solids from the petroleum refining industry.	(T)
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry.	(T)
K051	API separator sludge from the petroleum refining industry.	(T)
K052	Tank bottoms (leaded) from the petroleum refining industry.	(T)
K169	Crude oil storage tank sediment from petroleum refining operations.	(T)
K170	Clarified slurry oil tank sediment and/or in-line filter/separation solids from petroleum refining operations.	(T)
K171	Spent Hydrotreating catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors (this listing does not include inert support media).	(I,T)
K172	Spent Hydrorefining catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors (this listing does not include inert support media).	(I,T)
Iron and steel:		
K061	Emission control dust/sludge from the primary production of steel in electric furnaces.	(T)
K062	Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332).	(C,T)
Primary aluminum:		

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K088	Spent potliners from primary aluminum reduction.	(T)
Secondary lead:		
K069	Emission control dust/sludge from secondary lead smelting. (Note: This listing is stayed administratively for sludge generated from secondary acid scrubber systems. The stay will remain in effect until further administrative action is taken. If EPA takes further action effecting this stay, EPA will publish a notice of the action in the Federal Register).	(T)
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.	(T)
Veterinary pharmaceu-ticals:		
K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)
K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)
K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)
Ink formulation:		
K086	Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.	(T)
Coking:		
K060	Ammonia still lime sludge from coking operations.	(T)
K087	Decanter tank tar sludge from coking operations.	(T)
K141	Process residues from the recovery of coal tar, including, but not limited to, collecting sump residues from the production of coke from coal or the recovery of coke by-products produced from coal. This listing does not include K087 (decanter tank tar sludges from coking operations).	(T)
K142	Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal.	(T)
K143	Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal.	(T)
K144	Wastewater sump residues from light oil refining, including, but not limited to, intercepting or contamination sump sludges from the recovery of coke by-products produced from coal.	(T)
K145	Residues from naphthalene collection and recovery operations from the recovery of coke by-products produced from coal.	(T)

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K147	Tar storage tank residues from coal tar refining.	(T)
K148	Residues from coal tar distillation, including but not limited to, still bottoms.	(T)

(d) Discarded Commercial Chemical Products, Off-specifications Species, Container Residues, and Spill Residues Thereof [40 CFR 261.33]

The following materials or items are hazardous wastes if and when they are discarded or intended to be discarded as described in item (1)(b)1(ii)(I) of this Rule, when they are mixed with waste oil or used oil or other material and applied to the land for dust suppression or road treatment, when they are otherwise applied to the land in lieu of their original intended use or when they are contained in products that are applied to the land in lieu of their original intended use, or when, in lieu of their original intended use, they are produced for use as (or as a component of) a fuel, distributed for use as a fuel, or burned as a fuel.

1. Any commercial chemical product, or manufacturing chemical intermediate having the generic name listed in part 5 or 6 of this subparagraph.

2. Any off-specification commercial chemical product or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in part 5 or 6 of this subparagraph.

3. Any residue remaining in a container or in an inner liner removed from a container that has held any commercial chemical product or manufacturing chemical intermediate having the generic name listed in part 5 or 6 of this subparagraph, unless the container is empty as defined in Rule 1200-1-11-.02(1)(g)2.

(Comment: Unless the residue is being beneficially used or reused, or legitimately recycled or reclaimed; or being accumulated, stored, transported or treated prior to such use, re-use, recycling or reclamation, Department considers the residue to be intended for discard, and thus, a hazardous waste. An example of a legitimate re-use of the residue would be where the residue remains in the container and the container is used to hold the same commercial chemical product or manufacturing chemical intermediate it previously held. An example of the discard of the residue would be where the drum is sent to a drum reconditioner who reconditions the drum but discards the residue.)

4. Any residue or contaminated soil, water or other debris resulting from the cleanup of a spill into or on any land or water of any commercial chemical product or manufacturing chemical intermediate having the generic name listed in part 5 or 6 of this subparagraph, or any residue or contaminated soil, water or other debris resulting from the cleanup of a spill, into or on any land or water, of any off-specification chemical product and manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in part 5 or 6 of this subparagraph.

(Comment: The phrase "commercial chemical product or manufacturing chemical intermediate having the generic name listed in . . ." refers to a chemical substance which is manufactured or formulated for commercial or manufacturing use which consists of the commercially pure grade of the chemical, any technical grades of the chemical that are produced or marketed, and all formulations in which the chemical is the sole active ingredient. It does not refer to a material, such as a manufacturing process waste, that contains any of the substances listed in part 5 or 6 of this subparagraph. Where a manufacturing process waste is deemed to be a hazardous waste because it contains a substance listed in part 5 or 6 of this subparagraph, such waste will be listed in either subparagraphs (b) or (c) of this paragraph or will be identified as a hazardous waste by the characteristics set forth in paragraph (3) of this Rule.)

5. The commercial chemical products, manufacturing chemical intermediates or off-specification commercial chemical products or manufacturing chemical intermediates

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referred to in parts 1 through 4 of this subparagraph, are identified as acute hazardous wastes (H) and are subject to the small quantity exclusion defined in part (1)(e)5 and 6 of this Rule.

(Comment: For the convenience of the regulated community the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), and R (Reactivity). Absence of a letter indicates that the compound only is listed for acute toxicity.)

These wastes and their corresponding Hazardous Waste Codes are:

Hazardous Waste No.	Chemical Abstracts No.	Substance
P023	107-20-0	Acetaldehyde, chloro-
P002	591-08-2	Acetamide, N-(aminothioxomethyl)-
P057	640-19-7	Acetamide, 2-fluoro-
P058	62-74-8	Acetic acid, fluoro-, sodium salt
P002	591-08-2	1-Acetyl-2-thiourea
P003	107-02-8	Acrolein
P070	116-06-3	Aldicarb
P203	1646-88-4	Aldicarb sulfone.
P004	309-00-2	Aldrin
P005	107-18-6	Allyl alcohol
P006	20859-73-8	Aluminum phosphide (R,T)
P007	2763-96-4	5-(Aminomethyl)-3-isoxazolol
P008	504-24-5	4-Aminopyridine
P009	131-74-8	Ammonium picrate (R)
P119	7803-55-6	Ammonium vanadate
P099	506-61-6	Argentate(1-), bis(cyano-C)-, potassium
P010	7778-39-4	Arsenic acid H_3AsO_4
P012	1327-53-3	Arsenic oxide As_2O_3
P011	1303-28-2	Arsenic oxide As_2O_5
P011	1303-28-2	Arsenic pentoxide
P012	1327-53-3	Arsenic trioxide
P038	692-42-2	Arsine, diethyl-
P036	696-28-6	Arsonous dichloride, phenyl-
P054	151-56-4	Aziridine
P067	75-55-8	Aziridine, 2-methyl-

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P013	542-62-1	Barium cyanide
P024	106-47-8	Benzenamine, 4-chloro-
P077	100-01-6	Benzenamine, 4-nitro-
P028	100-44-7	Benzene, (chloromethyl)-
P042	51-43-4	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-, (R)-
P046	122-09-8	Benzeneethanamine, alpha,alpha-dimethyl-
P014	108-98-5	Benzenethiol
P127	1563-66-2	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate.
P188	57-64-7	Benzoic acid, 2-hydroxy-, compd. with (3aS-cis)-1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo[2,3-b]indol-5-yl methylcarbamate ester (1:1).
P001	[1]81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, & salts, when present at concentrations greater than 0.3%
P028	100-44-7	Benzyl chloride
P015	7440-41-7	Beryllium powder
P017	598-31-2	Bromoacetone
P018	357-57-3	Brucine
P045	39196-18-4	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-[(methylamino)carbonyl] oxime
P021	592-01-8	Calcium cyanide
P021	592-01-8	Calcium cyanide $Ca(CN)_2$
P189	55285-14-8	Carbamic acid, [(dibutylamino)- thio]methyl-, 2,3-dihydro-2,2-dimethyl-7-benzofuranyl ester.
P191	644-64-4	Carbamic acid, dimethyl-, 1-[(dimethyl-amino)carbonyl]- 5-methyl-1H-pyrazol-3-yl ester.
P192	119-38-0	Carbamic acid, dimethyl-, 3-methyl-1- (1-methylethyl)-1H- pyrazol-5-yl ester.
P190	1129-41-5	Carbamic acid, methyl-, 3-methylphenyl ester.
P127	1563-66-2	Carbofuran.
P022	75-15-0	Carbon disulfide
P095	75-44-5	Carbonic dichloride
P189	55285-14-8	Carbosulfan.
P023	107-20-0	Chloroacetaldehyde
P024	106-47-8	p-Chloroaniline
P026	5344-82-1	1-(o-Chlorophenyl)thiourea
P027	542-76-7	3-Chloropropionitrile
P029	544-92-3	Copper cyanide

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P029	544-92-3	Copper cyanide Cu(CN)
P202	64-00-6	m-Cumenyl methylcarbamate.
P030		Cyanides (soluble cyanide salts), not otherwise specified
P031	460-19-5	Cyanogen
P033	506-77-4	Cyanogen chloride
P033	506-77-4	Cyanogen chloride (CN)Cl
P034	131-89-5	2-Cyclohexyl-4,6-dinitrophenol
P016	542-88-1	Dichloromethyl ether
P036	696-28-6	Dichlorophenylarsine
P037	60-57-1	Dieldrin
P038	692-42-2	Diethylarsine
P041	311-45-5	Diethyl-p-nitrophenyl phosphate
P040	297-97-2	O,O-Diethyl O-pyrazinyl phosphorothioate
P043	55-91-4	Diisopropylfluorophosphate (DFP)
P004	309-00-2	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a,-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)-
P060	465-73-6	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5beta,8beta,8abeta)-
P037	60-57-1	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta, 7aalpha)-
P051	[1]72-20-8	2,7:3,6-Dimethanonaphth [2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta, 7aalpha)-, & metabolites
P044	60-51-5	Dimethoate
P046	122-09-8	alpha,alpha-Dimethylphenethylamine
P191	644-64-4	Dimetilan.
P047	[1]534-52-1	4,6-Dinitro-o-cresol, & salts
P048	51-28-5	2,4-Dinitrophenol
P020	88-85-7	Dinoseb
P085	152-16-9	Diphosphoramide, octamethyl-
P111	107-49-3	Diphosphoric acid, tetraethyl ester
P039	298-04-4	Disulfoton
P049	541-53-7	Dithiobiuret
P185	26419-73-8	1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, O- [(methylamino)-carbonyl]oxime.

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P050	115-29-7	Endosulfan
P088	145-73-3	Endothall
P051	72-20-8	Endrin
P051	72-20-8	Endrin, & metabolites
P042	51-43-4	Epinephrine
P031	460-19-5	Ethanedinitrile
P194	23135-22-0	Ethanimidothioc acid, 2-(dimethylamino)-N-[[(methylamino) carbonyl]oxy]-2-oxo-, methyl ester.
P066	16752-77-5	Ethanimidothioic acid, N-[[(methylamino)carbonyl]oxy]-, methyl ester
P101	107-12-0	Ethyl cyanide
P054	151-56-4	Ethyleneimine
P097	52-85-7	Famphur
P056	7782-41-4	Fluorine
P057	640-19-7	Fluoroacetamide
P058	62-74-8	Fluoroacetic acid, sodium salt
P198	23422-53-9	Formetanate hydrochloride.
P197	17702-57-7	Formparanate.
P065	628-86-4	Fulminic acid, mercury(2+) salt (R,T)
P059	76-44-8	Heptachlor
P062	757-58-4	Hexaethyl tetraphosphate
P116	79-19-6	Hydrazinecarbothioamide
P068	60-34-4	Hydrazine, methyl-
P063	74-90-8	Hydrocyanic acid
P063	74-90-8	Hydrogen cyanide
P096	7803-51-2	Hydrogen phosphide
P060	465-73-6	Isodrin
P192	119-38-0	Isolan.
P202	64-00-6	3-Isopropylphenyl N-methylcarbamate.
P007	2763-96-4	3(2H)-Isoxazolone, 5-(aminomethyl)-
P196	15339-36-3	Manganese, bis(dimethylcarbamodithioato-S,S')-,
P196	15339-36-3	Manganese dimethyldithiocarbamate.
P092	62-38-4	Mercury, (acetato-O)phenyl-
P065	628-86-4	Mercury fulminate (R,T)
P082	62-75-9	Methanamine, N-methyl-N-nitroso-

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P064	624-83-9	Methane, isocyanato-
P016	542-88-1	Methane, oxybis[chloro-
P112	509-14-8	Methane, tetranitro- (R)
P118	75-70-7	Methanethiol, trichloro-
P198	23422-53-9	Methanimidamide, N,N-dimethyl-N'-[3-[[(methylamino)-carbonyl]oxy]phenyl]-, monohydrochloride.
P197	17702-57-7	Methanimidamide, N,N-dimethyl-N'-[2-methyl-4-[[(methylamino)carbonyl]oxy]phenyl]-
P050	115-29-7	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10- hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide
P059	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro- 3a,4,7,7a-tetrahydro-
P199	2032-65-7	Methiocarb.
P066	16752-77-5	Methomyl
P068	60-34-4	Methyl hydrazine
P064	624-83-9	Methyl isocyanate
P069	75-86-5	2-Methyllactonitrile
P071	298-00-0	Methyl parathion
P190	1129-41-5	Metolcarb.
P128	315-18-4	Mexacarbate.
P072	86-88-4	alpha-Naphthylthiourea
P073	13463-39-3	Nickel carbonyl
P073	13463-39-3	Nickel carbonyl $Ni(CO)_4$, (T-4)-
P074	557-19-7	Nickel cyanide
P074	557-19-7	Nickel cyanide $Ni(CN)_2$
P075	[1]54-11-5	Nicotine, & salts
P076	10102-43-9	Nitric oxide
P077	100-01-6	p-Nitroaniline
P078	10102-44-0	Nitrogen dioxide
P076	10102-43-9	Nitrogen oxide NO
P078	10102-44-0	Nitrogen oxide NO_2
P081	55-63-0	Nitroglycerine (R)
P082	62-75-9	N-Nitrosodimethylamine
P084	4549-40-0	N-Nitrosomethylvinylamine
P085	152-16-9	Octamethylpyrophosphoramide

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P087	20816-12-0	Osmium oxide OsO_4, (T-4)-
P087	20816-12-0	Osmium tetroxide
P088	145-73-3	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
P194	23135-22-0	Oxamyl.
P089	56-38-2	Parathion
P034	131-89-5	Phenol, 2-cyclohexyl-4,6-dinitro-
P128	315-18-4	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester).
P199	2032-65-7	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate
P048	51-28-5	Phenol, 2,4-dinitro-
P047	[1]534-52-1	Phenol, 2-methyl-4,6-dinitro-, & salts
P202	64-00-6	Phenol, 3-(1-methylethyl)-, methyl carbamate.
P201	2631-37-0	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate.
P020	88-85-7	Phenol, 2-(1-methylpropyl)-4,6-dinitro-
P009	131-74-8	Phenol, 2,4,6-trinitro-, ammonium salt (R)
P092	62-38-4	Phenylmercury acetate
P093	103-85-5	Phenylthiourea
P094	298-02-2	Phorate
P095	75-44-5	Phosgene
P096	7803-51-2	Phosphine
P041	311-45-5	Phosphoric acid, diethyl 4-nitrophenyl ester
P039	298-04-4	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester
P094	298-02-2	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester
P044	60-51-5	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester
P043	55-91-4	Phosphorofluoridic acid, bis(1-methylethyl) ester
P089	56-38-2	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester
P040	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
P097	52-85-7	Phosphorothioic acid, O-[4-[(dimethylamino)sulfonyl]phenyl] O,O-dimethyl ester
P071	298-00-0	Phosphorothioic acid, O,O,-dimethyl O-(4-nitrophenyl) ester
P204	57-47-6	Physostigmine.
P188	57-64-7	Physostigmine salicylate.
P110	78-00-2	Plumbane, tetraethyl-
P098	151-50-8	Potassium cyanide
P098	151-50-8	Potassium cyanide K(CN)

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P099	506-61-6	Potassium silver cyanide
P201	2631-37-0	Promecarb
P203	1646-88-4	Propanal, 2-methyl-2-(methyl-sulfonyl)-, O-[(methylamino)carbonyl] oxime.
P070	116-06-3	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime
P101	107-12-0	Propanenitrile
P027	542-76-7	Propanenitrile, 3-chloro-
P069	75-86-5	Propanenitrile, 2-hydroxy-2-methyl-
P081	55-63-0	1,2,3-Propanetriol, trinitrate (R)
P017	598-31-2	2-Propanone, 1-bromo-
P102	107-19-7	Propargyl alcohol
P003	107-02-8	2-Propenal
P005	107-18-6	2-Propen-1-ol
P067	75-55-8	1,2-Propylenimine
P102	107-19-7	2-Propyn-1-ol
P008	504-24-5	4-Pyridinamine
P075	[1]54-11-5	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-, & salts
P204	57-47-6	Pyrrolo[2,3-b]indol-5-ol, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester), (3aS-cis)-.
P114	12039-52-0	Selenious acid, dithallium(1+) salt
P103	630-10-4	Selenourea
P104	506-64-9	Silver cyanide
P104	506-64-9	Silver cyanide Ag(CN)
P105	26628-22-8	Sodium azide
P106	143-33-9	Sodium cyanide
P106	143-33-9	Sodium cyanide Na(CN)
P108	[1]57-24-9	Strychnidin-10-one, & salts
P018	357-57-3	Strychnidin-10-one, 2,3-dimethoxy-
P108	[1]57-24-9	Strychnine, & salts
P115	7446-18-6	Sulfuric acid, dithallium(1+) salt
P109	3689-24-5	Tetraethyldithiopyrophosphate
P110	78-00-2	Tetraethyl lead
P111	107-49-3	Tetraethyl pyrophosphate
P112	509-14-8	Tetranitromethane (R)
P062	757-58-4	Tetraphosphoric acid, hexaethyl ester

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P113	1314-32-5	Thallic oxide
P113	1314-32-5	Thallium oxide Tl_2O_3
P114	12039-52-0	Thallium(I) selenite
P115	7446-18-6	Thallium(I) sulfate
P109	3689-24-5	Thiodiphosphoric acid, tetraethyl ester
P045	39196-18-4	Thiofanox
P049	541-53-7	Thioimidodicarbonic diamide $[(H_2N)C(S)]_2NH$
P014	108-98-5	Thiophenol
P116	79-19-6	Thiosemicarbazide
P026	5344-82-1	Thiourea, (2-chlorophenyl)-
P072	86-88-4	Thiourea, 1-naphthalenyl-
P093	103-85-5	Thiourea, phenyl-
P185	26419-73-8	Tirpate.
P123	8001-35-2	Toxaphene
P118	75-70-7	Trichloromethanethiol
P119	7803-55-6	Vanadic acid, ammonium salt
P120	1314-62-1	Vanadium oxide V_2O_5
P120	1314-62-1	Vanadium pentoxide
P084	4549-40-0	Vinylamine, N-methyl-N-nitroso-
P001	[1]81-81-2	Warfarin, & salts, when present at concentrations greater than 0.3%
P205	137-30-4	Zinc, bis(dimethylcarbamodithioato-S,S')-,
P121	557-21-1	Zinc cyanide
P121	557-21-1	Zinc cyanide $Zn(CN)_2$
P122	1314-84-7	Zinc phosphide Zn_3P_2, when present at concentrations greater than 10% (R,T)
P205	137-30-4	Ziram.

FOOTNOTE: [1]CAS Number given for parent compound only.

6. The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products referred to in parts 1 through 4 of this subparagraph, are identified as toxic wastes (T), unless otherwise designated and are subject to the small quantity generator exclusion defined in parts (1)(e) 1 and 7 of this Rule.

(Comment: For the convenience of the regulated community, the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), R (Reactivity), I (Ignitability) and C (Corrosivity). Absence of a letter indicates that the compound is only listed for toxicity.)

These wastes and their corresponding Hazardous Waste Codes are:

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Hazardous Waste No.	Chemical Abstracts No.	Substance
U394	30558-43-1	A2213.
U001	75-07-0	Acetaldehyde (I)
U034	75-87-6	Acetaldehyde, trichloro-
U187	62-44-2	Acetamide, N-(4-ethoxyphenyl)-
U005	53-96-3	Acetamide, N-9H-fluoren-2-yl-
U240	[1]94-75-7	Acetic acid, (2,4-dichlorophenoxy)-, salts & esters
U112	141-78-6	Acetic acid, ethyl ester (I)
U144	301-04-2	Acetic acid, lead(2+) salt
U214	563-68-8	Acetic acid, thallium(1+) salt
see F027	93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-
U002	67-64-1	Acetone (I)
U003	75-05-8	Acetonitrile (I,T)
U004	98-86-2	Acetophenone
U005	53-96-3	2-Acetylaminofluorene
U006	75-36-5	Acetyl chloride (C,R,T)
U007	79-06-1	Acrylamide
U008	79-10-7	Acrylic acid (I)
U009	107-13-1	Acrylonitrile
U011	61-82-5	Amitrole
U012	62-53-3	Aniline (I,T)
U136	75-60-5	Arsinic acid, dimethyl-
U014	492-80-8	Auramine
U015	115-02-6	Azaserine
U010	50-07-7	Azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione, 6-amino-8-[[(aminocarbonyl)oxy]methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-, [1aS-(1aalpha, 8beta,8aalpha,8balpha)]-
U280	101-27-9	Barban.
U278	22781-23-3	Bendiocarb.
U364	22961-82-6	Bendiocarb phenol.
U271	17804-35-2	Benomyl.
U157	56-49-5	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-

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U016	225-51-4	Benz[c]acridine
U017	98-87-3	Benzal chloride
U192	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-
U018	56-55-3	Benz[a]anthracene
U094	57-97-6	Benz[a]anthracene, 7,12-dimethyl-
U012	62-53-3	Benzenamine (I,T)
U014	492-80-8	Benzenamine, 4,4'-carbonimidoylbis[N,N-dimethyl-
U049	3165-93-3	Benzenamine, 4-chloro-2-methyl-, hydrochloride
U093	60-11-7	Benzenamine, N,N-dimethyl-4-(phenylazo)-
U328	95-53-4	Benzenamine, 2-methyl-
U353	106-49-0	Benzenamine, 4-methyl-
U158	101-14-4	Benzenamine, 4,4'-methylenebis[2-chloro-
U222	636-21-5	Benzenamine, 2-methyl-, hydrochloride
U181	99-55-8	Benzenamine, 2-methyl-5-nitro-
U019	71-43-2	Benzene (I,T)
U038	510-15-6	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester
U030	101-55-3	Benzene, 1-bromo-4-phenoxy-
U035	305-03-3	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-
U037	108-90-7	Benzene, chloro-
U221	25376-45-8	Benzenediamine, ar-methyl-
U028	117-81-7	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester
U069	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester
U088	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester
U102	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester
U107	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester
U070	95-50-1	Benzene, 1,2-dichloro-
U071	541-73-1	Benzene, 1,3-dichloro-
U072	106-46-7	Benzene, 1,4-dichloro-
U060	72-54-8	Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro-
U017	98-87-3	Benzene, (dichloromethyl)-
U223	26471-62-5	Benzene, 1,3-diisocyanatomethyl- (R,T)
U239	1330-20-7	Benzene, dimethyl- (I,T)
U201	108-46-3	1,3-Benzenediol

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U127	118-74-1	Benzene, hexachloro-
U056	110-82-7	Benzene, hexahydro- (I)
U220	108-88-3	Benzene, methyl-
U105	121-14-2	Benzene, 1-methyl-2,4-dinitro-
U106	606-20-2	Benzene, 2-methyl-1,3-dinitro-
U055	98-82-8	Benzene, (1-methylethyl)- (I)
U169	98-95-3	Benzene, nitro-
U183	608-93-5	Benzene, pentachloro-
U185	82-68-8	Benzene, pentachloronitro-
U020	98-09-9	Benzenesulfonic acid chloride (C,R)
U020	98-09-9	Benzenesulfonyl chloride (C,R)
U207	95-94-3	Benzene, 1,2,4,5-tetrachloro-
U061	50-29-3	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro-
U247	72-43-5	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4- methoxy-
U023	98-07-7	Benzene, (trichloromethyl)-
U234	99-35-4	Benzene, 1,3,5-trinitro-
U021	92-87-5	Benzidine
U202	[1]81-07-2	1,2-Benzisothiazol-3(2H)-one, 1,1-dioxide, & salts
U278	22781-23-3	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate.
U364	22961-82-6	1,3-Benzodioxol-4-ol, 2,2-dimethyl-,
U203	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-
U141	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-
U090	94-58-6	1,3-Benzodioxole, 5-propyl-
U367	1563-38-8	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-
U064	189-55-9	Benzo[rst]pentaphene
U248	[1]81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, & salts, when present at concentrations of 0.3% or less
U022	50-32-8	Benzo[a]pyrene
U197	106-51-4	p-Benzoquinone
U023	98-07-7	Benzotrichloride (C,R,T)
U085	1464-53-5	2,2'-Bioxirane
U021	92-87-5	[1,1'-Biphenyl]-4,4'-diamine
U073	91-94-1	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-
U091	119-90-4	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-

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U095	119-93-7	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-
U225	75-25-2	Bromoform
U030	101-55-3	4-Bromophenyl phenyl ether
U128	87-68-3	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-
U172	924-16-3	1-Butanamine, N-butyl-N-nitroso-
U031	71-36-3	1-Butanol (I)
U159	78-93-3	2-Butanone (I,T)
U160	1338-23-4	2-Butanone peroxide (R,T)
U053	4170-30-3	2-Butenal
U074	764-41-0	2-Butene, 1,4-dichloro- (I,T)
U143	303-34-4	2-Butenoic acid, 2-methyl-, 7-[[2,3-dihydroxy- 2-(1-methoxyethyl)-3-methyl-1-oxobutoxy]methyl]- 2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-[1alpha(Z),7(2S*,3R*),7aalpha]]-
U031	71-36-3	n-Butyl alcohol (I)
U136	75-60-5	Cacodylic acid
U032	13765-19-0	Calcium chromate
U372	10605-21-7	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester.
U271	17804-35-2	Carbamic acid, [1-[(butylamino)carbonyl]-1H-benzimidazol-2- yl]-, methyl ester.
U280	101-27-9	Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester.
U238	51-79-6	Carbamic acid, ethyl ester
U178	615-53-2	Carbamic acid, methylnitroso-, ethyl ester
U373	122-42-9	Carbamic acid, phenyl-, 1-methylethyl ester.
U409	23564-05-8	Carbamic acid, [1,2-phenylenebis (iminocarbonothioyl)]bis-, dimethyl ester.
U097	79-44-7	Carbamic chloride, dimethyl-
U114	[1]111-54-6	Carbamodithioic acid, 1,2-ethanediylbis-, salts & esters
U062	2303-16-4	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester
U389	2303-17-5	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester.
U387	52888-80-9	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester.
U279	63-25-2	Carbaryl.
U372	10605-21-7	Carbendazim.
U367	1563-38-8	Carbofuran phenol.
U215	6533-73-9	Carbonic acid, dithallium(1+) salt
U033	353-50-4	Carbonic difluoride

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U156	79-22-1	Carbonochloridic acid, methyl ester (I,T)
U033	353-50-4	Carbon oxyfluoride (R,T)
U211	56-23-5	Carbon tetrachloride
U034	75-87-6	Chloral
U035	305-03-3	Chlorambucil
U036	57-74-9	Chlordane, alpha & gamma isomers
U026	494-03-1	Chlornaphazin
U037	108-90-7	Chlorobenzene
U038	510-15-6	Chlorobenzilate
U039	59-50-7	p-Chloro-m-cresol
U042	110-75-8	2-Chloroethyl vinyl ether
U044	67-66-3	Chloroform
U046	107-30-2	Chloromethyl methyl ether
U047	91-58-7	beta-Chloronaphthalene
U048	95-57-8	o-Chlorophenol
U049	3165-93-3	4-Chloro-o-toluidine, hydrochloride
U032	13765-19-0	Chromic acid H_2CrO_4, calcium salt
U050	218-01-9	Chrysene
U051		Creosote
U052	1319-77-3	Cresol (Cresylic acid)
U053	4170-30-3	Crotonaldehyde
U055	98-82-8	Cumene (I)
U246	506-68-3	Cyanogen bromide (CN)Br
U197	106-51-4	2,5-Cyclohexadiene-1,4-dione
U056	110-82-7	Cyclohexane (I)
U129	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha,5alpha,6beta)-
U057	108-94-1	Cyclohexanone (I)
U130	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-
U058	50-18-0	Cyclophosphamide
U240	[1]94-75-7	2,4-D, salts & esters
U059	20830-81-3	Daunomycin
U060	72-54-8	DDD
U061	50-29-3	DDT

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U062	2303-16-4	Diallate
U063	53-70-3	Dibenz[a,h]anthracene
U064	189-55-9	Dibenzo[a,i]pyrene
U066	96-12-8	1,2-Dibromo-3-chloropropane
U069	84-74-2	Dibutyl phthalate
U070	95-50-1	o-Dichlorobenzene
U071	541-73-1	m-Dichlorobenzene
U072	106-46-7	p-Dichlorobenzene
U073	91-94-1	3,3'-Dichlorobenzidine
U074	764-41-0	1,4-Dichloro-2-butene (I,T)
U075	75-71-8	Dichlorodifluoromethane
U078	75-35-4	1,1-Dichloroethylene
U079	156-60-5	1,2-Dichloroethylene
U025	111-44-4	Dichloroethyl ether
U027	108-60-1	Dichloroisopropyl ether
U024	111-91-1	Dichloromethoxy ethane
U081	120-83-2	2,4-Dichlorophenol
U082	87-65-0	2,6-Dichlorophenol
U084	542-75-6	1,3-Dichloropropene
U085	1464-53-5	1,2:3,4-Diepoxybutane (I,T)
U395	5952-26-1	Diethylene glycol, dicarbamate.
U108	123-91-1	1,4-Diethyleneoxide
U028	117-81-7	Diethylhexyl phthalate
U086	1615-80-1	N,N'-Diethylhydrazine
U087	3288-58-2	O,O-Diethyl S-methyl dithiophosphate
U088	84-66-2	Diethyl phthalate
U089	56-53-1	Diethylstilbesterol
U090	94-58-6	Dihydrosafrole
U091	119-90-4	3,3'-Dimethoxybenzidine
U092	124-40-3	Dimethylamine (I)
U093	60-11-7	p-Dimethylaminoazobenzene
U094	57-97-6	7,12-Dimethylbenz[a]anthracene
U095	119-93-7	3,3'-Dimethylbenzidine

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U096	80-15-9	alpha,alpha-Dimethylbenzylhydroperoxide (R)
U097	79-44-7	Dimethylcarbamoyl chloride
U098	57-14-7	1,1-Dimethylhydrazine
U099	540-73-8	1,2-Dimethylhydrazine
U101	105-67-9	2,4-Dimethylphenol
U102	131-11-3	Dimethyl phthalate
U103	77-78-1	Dimethyl sulfate
U105	121-14-2	2,4-Dinitrotoluene
U106	606-20-2	2,6-Dinitrotoluene
U107	117-84-0	Di-n-octyl phthalate
U108	123-91-1	1,4-Dioxane
U109	122-66-7	1,2-Diphenylhydrazine
U110	142-84-7	Dipropylamine (I)
U111	621-64-7	Di-n-propylnitrosamine
U041	106-89-8	Epichlorohydrin
U001	75-07-0	Ethanal (I)
U174	55-18-5	Ethanamine, N-ethyl-N-nitroso-
U404	121-44-8	Ethanamine, N,N-diethyl-
U155	91-80-5	1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-
U067	106-93-4	Ethane, 1,2-dibromo-
U076	75-34-3	Ethane, 1,1-dichloro-
U077	107-06-2	Ethane, 1,2-dichloro-
U131	67-72-1	Ethane, hexachloro-
U024	111-91-1	Ethane, 1,1'-[methylenebis(oxy)]bis[2-chloro-
U117	60-29-7	Ethane, 1,1'-oxybis-(I)
U025	111-44-4	Ethane, 1,1'-oxybis[2-chloro-
U184	76-01-7	Ethane, pentachloro-
U208	630-20-6	Ethane, 1,1,1,2-tetrachloro-
U209	79-34-5	Ethane, 1,1,2,2-tetrachloro-
U218	62-55-5	Ethanethioamide
U226	71-55-6	Ethane, 1,1,1-trichloro-
U227	79-00-5	Ethane, 1,1,2-trichloro-
U410	59669-26-0	Ethanimidothioic acid, N,N'- [thiobis[(methylimino)carbonyloxy]]bis-, dimethyl ester

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U394	30558-43-1	Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo-, methyl ester.
U359	110-80-5	Ethanol, 2-ethoxy-
U173	1116-54-7	Ethanol, 2,2'-(nitrosoimino)bis-
U395	5952-26-1	Ethanol, 2,2'-oxybis-, dicarbamate.
U004	98-86-2	Ethanone, 1-phenyl-
U043	75-01-4	Ethene, chloro-
U042	110-75-8	Ethene, (2-chloroethoxy)-
U078	75-35-4	Ethene, 1,1-dichloro-
U079	156-60-5	Ethene, 1,2-dichloro-, (E)-
U210	127-18-4	Ethene, tetrachloro-
U228	79-01-6	Ethene, trichloro-
U112	141-78-6	Ethyl acetate (I)
U113	140-88-5	Ethyl acrylate (I)
U238	51-79-6	Ethyl carbamate (urethane)
U117	60-29-7	Ethyl ether (I)
U114	[1]111-54-6	Ethylenebisdithiocarbamic acid, salts & esters
U067	106-93-4	Ethylene dibromide
U077	107-06-2	Ethylene dichloride
U359	110-80-5	Ethylene glycol monoethyl ether
U115	75-21-8	Ethylene oxide (I,T)
U116	96-45-7	Ethylenethiourea
U076	75-34-3	Ethylidene dichloride
U118	97-63-2	Ethyl methacrylate
U119	62-50-0	Ethyl methanesulfonate
U120	206-44-0	Fluoranthene
U122	50-00-0	Formaldehyde
U123	64-18-6	Formic acid (C,T)
U124	110-00-9	Furan (I)
U125	98-01-1	2-Furancarboxaldehyde (I)
U147	108-31-6	2,5-Furandione
U213	109-99-9	Furan, tetrahydro-(I)
U125	98-01-1	Furfural (I)
U124	110-00-9	Furfuran (I)

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U206	18883-66-4	Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-, D-
U206	18883-66-4	D-Glucose, 2-deoxy-2-[[(methylnitrosoamino)- carbonyl]amino]-
U126	765-34-4	Glycidylaldehyde
U163	70-25-7	Guanidine, N-methyl-N'-nitro-N-nitroso-
U127	118-74-1	Hexachlorobenzene
U128	87-68-3	Hexachlorobutadiene
U130	77-47-4	Hexachlorocyclopentadiene
U131	67-72-1	Hexachloroethane
U132	70-30-4	Hexachlorophene
U243	1888-71-7	Hexachloropropene
U133	302-01-2	Hydrazine (R,T)
U086	1615-80-1	Hydrazine, 1,2-diethyl-
U098	57-14-7	Hydrazine, 1,1-dimethyl-
U099	540-73-8	Hydrazine, 1,2-dimethyl-
U109	122-66-7	Hydrazine, 1,2-diphenyl-
U134	7664-39-3	Hydrofluoric acid (C,T)
U134	7664-39-3	Hydrogen fluoride (C,T)
U135	7783-06-4	Hydrogen sulfide
U135	7783-06-4	Hydrogen sulfide H_2S
U096	80-15-9	Hydroperoxide, 1-methyl-1-phenylethyl- (R)
U116	96-45-7	2-Imidazolidinethione
U137	193-39-5	Indeno[1,2,3-cd]pyrene
U190	85-44-9	1,3-Isobenzofurandione
U140	78-83-1	Isobutyl alcohol (I,T)
U141	120-58-1	Isosafrole
U142	143-50-0	Kepone
U143	303-34-4	Lasiocarpine
U144	301-04-2	Lead acetate
U146	1335-32-6	Lead, bis(acetato-O)tetrahydroxytri-
U145	7446-27-7	Lead phosphate
U146	1335-32-6	Lead subacetate
U129	58-89-9	Lindane
U163	70-25-7	MNNG

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U147	108-31-6	Maleic anhydride
U148	123-33-1	Maleic hydrazide
U149	109-77-3	Malononitrile
U150	148-82-3	Melphalan
U151	7439-97-6	Mercury
U152	126-98-7	Methacrylonitrile (I, T)
U092	124-40-3	Methanamine, N-methyl- (I)
U029	74-83-9	Methane, bromo-
U045	74-87-3	Methane, chloro- (I, T)
U046	107-30-2	Methane, chloromethoxy-
U068	74-95-3	Methane, dibromo-
U080	75-09-2	Methane, dichloro-
U075	75-71-8	Methane, dichlorodifluoro-
U138	74-88-4	Methane, iodo-
U119	62-50-0	Methanesulfonic acid, ethyl ester
U211	56-23-5	Methane, tetrachloro-
U153	74-93-1	Methanethiol (I, T)
U225	75-25-2	Methane, tribromo-
U044	67-66-3	Methane, trichloro-
U121	75-69-4	Methane, trichlorofluoro-
U036	57-74-9	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-
U154	67-56-1	Methanol (I)
U155	91-80-5	Methapyrilene
U142	143-50-0	1,3,4-Metheno-2H-cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-
U247	72-43-5	Methoxychlor
U154	67-56-1	Methyl alcohol (I)
U029	74-83-9	Methyl bromide
U186	504-60-9	1-Methylbutadiene (I)
U045	74-87-3	Methyl chloride (I,T)
U156	79-22-1	Methyl chlorocarbonate (I,T)
U226	71-55-6	Methyl chloroform
U157	56-49-5	3-Methylcholanthrene
U158	101-14-4	4,4'-Methylenebis(2-chloroaniline)

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U068	74-95-3	Methylene bromide
U080	75-09-2	Methylene chloride
U159	78-93-3	Methyl ethyl ketone (MEK) (I,T)
U160	1338-23-4	Methyl ethyl ketone peroxide (R,T)
U138	74-88-4	Methyl iodide
U161	108-10-1	Methyl isobutyl ketone (I)
U162	80-62-6	Methyl methacrylate (I,T)
U161	108-10-1	4-Methyl-2-pentanone (I)
U164	56-04-2	Methylthiouracil
U010	50-07-7	Mitomycin C
U059	20830-81-3	5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy)-alpha-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-
U167	134-32-7	1-Naphthalenamine
U168	91-59-8	2-Naphthalenamine
U026	494-03-1	Naphthalenamine, N,N'-bis(2-chloroethyl)-
U165	91-20-3	Naphthalene
U047	91-58-7	Naphthalene, 2-chloro-
U166	130-15-4	1,4-Naphthalenedione
U236	72-57-1	2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'- dimethyl[1,1'-biphenyl]-4,4'-diyl)bis(azo)bis[5-amino-4-hydroxy]-, tetrasodium salt
U279	63-25-2	1-Naphthalenol, methylcarbamate.
U166	130-15-4	1,4-Naphthoquinone
U167	134-32-7	alpha-Naphthylamine
U168	91-59-8	beta-Naphthylamine
U217	10102-45-1	Nitric acid, thallium(1+) salt
U169	98-95-3	Nitrobenzene (I,T)
U170	100-02-7	p-Nitrophenol
U171	79-46-9	2-Nitropropane (I,T)
U172	924-16-3	N-Nitrosodi-n-butylamine
U173	1116-54-7	N-Nitrosodiethanolamine
U174	55-18-5	N-Nitrosodiethylamine
U176	759-73-9	N-Nitroso-N-ethylurea
U177	684-93-5	N-Nitroso-N-methylurea

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U178	615-53-2	N-Nitroso-N-methylurethane
U179	100-75-4	N-Nitrosopiperidine
U180	930-55-2	N-Nitrosopyrrolidine
U181	99-55-8	5-Nitro-o-toluidine
U193	1120-71-4	1,2-Oxathiolane, 2,2-dioxide
U058	50-18-0	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide
U115	75-21-8	Oxirane (I,T)
U126	765-34-4	Oxiranecarboxyaldehyde
U041	106-89-8	Oxirane, (chloromethyl)-
U182	123-63-7	Paraldehyde
U183	608-93-5	Pentachlorobenzene
U184	76-01-7	Pentachloroethane
U185	82-68-8	Pentachloronitrobenzene (PCNB)
See F027	87-86-5	Pentachlorophenol
U161	108-10-1	Pentanol, 4-methyl-
U186	504-60-9	1,3-Pentadiene (I)
U187	62-44-2	Phenacetin
U188	108-95-2	Phenol
U048	95-57-8	Phenol, 2-chloro-
U039	59-50-7	Phenol, 4-chloro-3-methyl-
U081	120-83-2	Phenol, 2,4-dichloro-
U082	87-65-0	Phenol, 2,6-dichloro-
U089	56-53-1	Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-, (E)-
U101	105-67-9	Phenol, 2,4-dimethyl-
U052	1319-77-3	Phenol, methyl-
U132	70-30-4	Phenol, 2,2'-methylenebis[3,4,6-trichloro-
U411	114-26-1	Phenol, 2-(1-methylethoxy)-, methylcarbamate.
U170	100-02-7	Phenol, 4-nitro-
See F027	87-86-5	Phenol, pentachloro-
See F027	58-90-2	Phenol, 2,3,4,6-tetrachloro-
See F027	95-95-4	Phenol, 2,4,5-trichloro-
See F027	88-06-2	Phenol, 2,4,6-trichloro-
U150	148-82-3	L-Phenylalanine, 4-[bis(2-chloroethyl)amino]-

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U145	7446-27-7	Phosphoric acid, lead(2+) salt (2:3)
U087	3288-58-2	Phosphorodithioic acid, O,O-diethyl S-methyl ester
U189	1314-80-3	Phosphorus sulfide (R)
U190	85-44-9	Phthalic anhydride
U191	109-06-8	2-Picoline
U179	100-75-4	Piperidine, 1-nitroso-
U192	23950-58-5	Pronamide
U194	107-10-8	1-Propanamine (I,T)
U111	621-64-7	1-Propanamine, N-nitroso-N-propyl-
U110	142-84-7	1-Propanamine, N-propyl- (I)
U066	96-12-8	Propane, 1,2-dibromo-3-chloro-
U083	78-87-5	Propane, 1,2-dichloro-
U149	109-77-3	Propanedinitrile
U171	79-46-9	Propane, 2-nitro- (I,T)
U027	108-60-1	Propane, 2,2'-oxybis[2-chloro-
U193	1120-71-4	1,3-Propane sultone
See F027	93-72-1	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-
U235	126-72-7	1-Propanol, 2,3-dibromo-, phosphate (3:1)
U140	78-83-1	1-Propanol, 2-methyl- (I,T)
U002	67-64-1	2-Propanone (I)
U007	79-06-1	2-Propenamide
U084	542-75-6	1-Propene, 1,3-dichloro-
U243	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-
U009	107-13-1	2-Propenenitrile
U152	126-98-7	2-Propenenitrile, 2-methyl- (I,T)
U008	79-10-7	2-Propenoic acid (I)
U113	140-88-5	2-Propenoic acid, ethyl ester (I)
U118	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester
U162	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester (I,T)
U373	122-42-9	Propham.
U411	114-26-1	Propoxur.
U194	107-10-8	n-Propylamine (I,T)
U083	78-87-5	Propylene dichloride

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U387	52888-80-9	Prosulfocarb.
U148	123-33-1	3,6-Pyridazinedione, 1,2-dihydro-
U196	110-86-1	Pyridine
U191	109-06-8	Pyridine, 2-methyl-
U237	66-75-1	2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2- chloroethyl)amino]-
U164	56-04-2	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-
U180	930-55-2	Pyrrolidine, 1-nitroso-
U200	50-55-5	Reserpine
U201	108-46-3	Resorcinol
U202	[1]81-07-2	Saccharin, & salts
U203	94-59-7	Safrole
U204	7783-00-8	Selenious acid
U204	7783-00-8	Selenium dioxide
U205	7488-56-4	Selenium sulfide
U205	7488-56-4	Selenium sulfide SeS_2 (R,T)
U015	115-02-6	L-Serine, diazoacetate (ester)
See F027	93-72-1	Silvex (2,4,5-TP)
U206	18883-66-4	Streptozotocin
U103	77-78-1	Sulfuric acid, dimethyl ester
U189	1314-80-3	Sulfur phosphide (R)
See F027	93-76-5	2,4,5-T
U207	95-94-3	1,2,4,5-Tetrachlorobenzene
U208	630-20-6	1,1,1,2-Tetrachloroethane
U209	79-34-5	1,1,2,2-Tetrachloroethane
U210	127-18-4	Tetrachloroethylene
See F027	58-90-2	2,3,4,6-Tetrachlorophenol
U213	109-99-9	Tetrahydrofuran (I)
U214	563-68-8	Thallium(I) acetate
U215	6533-73-9	Thallium(I) carbonate
U216	7791-12-0	Thallium(I) chloride
U216	7791-12-0	Thallium chloride TlCl
U217	10102-45-1	Thallium(I) nitrate
U218	62-55-5	Thioacetamide

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U410	59669-26-0	Thiodicarb.
U153	74-93-1	Thiomethanol (I,T)
U244	137-26-8	Thioperoxydicarbonic diamide $[(H_2N)C(S)]_2S_2$, tetramethyl-
U409	23564-05-8	Thiophanate-methyl.
U219	62-56-6	Thiourea
U244	137-26-8	Thiram
U220	108-88-3	Toluene
U221	25376-45-8	Toluenediamine
U223	26471-62-5	Toluene diisocyanate (R,T)
U328	95-53-4	o-Toluidine
U353	106-49-0	p-Toluidine
U222	636-21-5	o-Toluidine hydrochloride
U389	2303-17-5	Triallate.
U011	61-82-5	1H-1,2,4-Triazol-3-amine
U227	79-00-5	1,1,2-Trichloroethane
U228	79-01-6	Trichloroethylene
U121	75-69-4	Trichloromonofluoromethane
See F027	95-95-4	2,4,5-Trichlorophenol
See F027	88-06-2	2,4,6-Trichlorophenol
U404	121-44-8	Triethylamine.
U234	99-35-4	1,3,5-Trinitrobenzene (R,T)
U182	123-63-7	1,3,5-Trioxane, 2,4,6-trimethyl-
U235	126-72-7	Tris(2,3-dibromopropyl) phosphate
U236	72-57-1	Trypan blue
U237	66-75-1	Uracil mustard
U176	759-73-9	Urea, N-ethyl-N-nitroso-
U177	684-93-5	Urea, N-methyl-N-nitroso-
U043	75-01-4	Vinyl chloride
U248	[1]81-81-2	Warfarin, & salts, when present at concentrations of 0.3% or less
U239	1330-20-7	Xylene (I)
U200	50-55-5	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester, (3beta,16beta,17alpha,18beta,20alpha)-
U249	1314-84-7	Zinc phosphide Zn_3P_2, when present at concentrations of 10% or less

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FOOTNOTE: [1]CAS Number given for parent compound only.

(e) (RESERVED) [40 CFR 261.34]

(f) Deletion of Certain Hazardous Waste Codes Following Equipment Cleaning and Replacement [40 CFR 261.35]

1. Wastes from wood preserving processes at plants that do not resume or initiate use of chlorophenolic preservatives will not meet the listing definition of F032 once the generator has met all of the requirements of parts 2 and 3 of this subparagraph. These wastes may, however, continue to meet another hazardous waste listing description or may exhibit one or more of the hazardous waste characteristics.
2. Generators must either clean or replace all process equipment that may have come into contact with chlorophenolic formulations or constituents thereof, including, but not limited to, treatment cylinders, sumps, tanks, piping systems, drip pads, fork lifts, and trams, in a manner that minimizes or eliminates the escape of hazardous waste or constituents, leachate, contaminated drippage, or hazardous waste decomposition products to the ground water, surface water, or atmosphere.

(i) Generators shall do one of the following:

(I) Prepare and follow an equipment cleaning plan and clean equipment in accordance with this part;

(II) Prepare and follow an equipment replacement plan and replace equipment in accordance with this part; or

(III) Document cleaning and replacement in accordance with this part, carried out after termination of use of chlorophenolic preservations.

(ii) Cleaning Requirements:

(I) Prepare and sign a written equipment cleaning plan that describes:

I. The equipment to be cleaned;

II. How the equipment will be cleaned;

III. The solvent to be used in cleaning;

IV. How solvent rinses will be tested; and

V. How cleaning residues will be disposed.

(II) Equipment must be cleaned as follows:

I. Remove all visible residues from process equipment;

II. Rinse process equipment with an appropriate solvent until dioxins and dibenzofurans are not detected in the final solvent rinse.

(III) Analytical requirements:

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I. Rinses must be tested in accordance with SW-846, Method 8290;

II. "Not detected" means at or below the lower method calibration limit (MCL) in Method 8290, Table 1.

(IV) The generator must manage all residues from the cleaning process as F032 waste.

(iii) Replacement requirements:

(I) Prepare and sign a written equipment replacement plan that describes:

I. The equipment to be replaced;

II. How the equipment will be replaced; and

III. How the equipment will be disposed.

(II) The generator must manage the discarded equipment as F032 waste.

(iv) Documentation requirements:

(I) Document that previous equipment cleaning and/or replacement was performed in accordance with this part and occurred after cessation of use of chlorophenolic preservatives.

3. The generator must maintain the following records documenting the cleaning and replacement as part of the facility's operating record:

(i) The name and address of the facility;

(ii) Formulations previously used and the date on which their use ceased in each process at the plant;

(iii) Formulations currently used in each process at the plant;

(iv) The equipment cleaning or replacement plan;

(v) The name and address of any persons who conducted the cleaning and replacement;

(vi) The dates on which cleaning and replacement were accomplished;

(vii) The dates of sampling and testing;

(viii) A description of the sample handling and preparation techniques, including techniques used for extraction, containerization, preservation, and chain-of-custody of the samples;

(ix) A description of the tests performed, the date the tests were performed, and the results of the tests;

(x) The name and model numbers of the instrument(s) used in performing the tests;

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(xi) QA/QC documentation; and

(xii) The following statement signed by the generator or his authorized representative:

"I certify under penalty of law that all process equipment required to be cleaned or replaced under Rule 1200-1-11-.02(4)(f) was cleaned or replaced as represented in the equipment cleaning and replacement plan and accompanying documentation. I am aware that there are significant penalties for providing false information, including the possibility of fine or imprisonment."

(g) (RESERVED) [40 CFR 261.36]

(h) (RESERVED) [40 CFR 261.37]

(i) Comparable/Syngas Fuel Exclusion [40 CFR 261.38]

Wastes that meet the following comparable/syngas fuel requirements are not solid wastes:

1. Comparable fuel specifications.

(i) Physical specifications.

(I) Heating value. The heating value must exceed 5,000 BTU/lbs. (11,500 J/g).

(II) Viscosity. The viscosity must not exceed: 50 cs, as-fired.

(ii) Constituent specifications. For compounds listed in table 1 to this subparagraph the specification levels and, where non-detect is the specification, minimum required detection limits are: (see Table 1).

2. Synthesis gas fuel specifications.

Synthesis gas fuel (i.e., syngas fuel) that is generated from hazardous waste must:

(i) Have a minimum Btu value of 100 Btu/scf (British thermal unit per standard cubic foot);

(ii) Contain less than 1 ppmv of total halogen;

(iii) Contain less than 300 ppmv of total nitrogen other than diatomic nitrogen (N_2);

(iv) Contain less than 200 ppmv of hydrogen sulfide; and

(v) Contain less than 1 ppmv of each hazardous constituent in the target list of Appendix VIII constituents of this Rule.

Table 1: Detection and Detection Limit Values for Comparable Fuel Specification

Chemical Name	CAS No.	Composite value (mg/kg)	Heating value (BTU/lb)	Concentration limit (mg/kg at 10,000 BTU/lb)	Minimum required detection limit (mg/kg)
Total Nitrogen as N	NA	9000	18400	4900	

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Total Halogens as CI	NA	1000	18400	540	
Total Organic Halogens as CI	NA			(1)	
Polychlorinated biphenyls total [Arocolors, total]	1336-36-3	ND		ND	1.4
Cyanide, total	57-12-5	ND		ND	1.0
Metals:					
Antimony, total	7440-36-0	ND		12	
Arsenic, total	7440-38-2	ND		0.23	
Barium, total	7440-39-3	ND		23	
Beryllium, total	7440-41-7	ND		1.2	
Cadmium, total	7440-43-9		ND		1.2
Chromium, total	7440-47-3	ND		2.3	
Cobalt	7440-48-4	ND		4.6	
Lead, total	7439-92-1	57	18100	31	
Manganese	7439-96-5	ND		1.2	
Mercury, total	7439-97-6	ND		0.25	
Nickel, total	7440-02-0	106	18400	58	
Selenium, total	7782-49-2	ND		0.23	
Silver, total	7440-22-4	ND		2.3	
Thallium, total	7440-28-0	ND		23	
Hydrocarbons:					
Benzo[a]anthracene	56-55-3	ND		2400	
Benzene	71-43-2	8000	19600	4100	
Benzo[b]fluoranthene	205-99-2	ND		2400	
Benzo[k]fluoranthene	207-08-9	ND		2400	
Benzo[a]pyrene	50-32-8	ND		2400	
Chrysene	218-01-9	ND		2400	
Dibenzo[a, h]anthracene	53-70-3	ND		2400	
7, 12-Dimethylbenz[a]anthracene	57-97-6	ND		2400	
Fluoranthene	206-44-0	ND		2400	
Indeno(1, 2, 3-cd)pyrene	193-39-5	ND		2400	
3-Methylcholanthrene	56-49-5	ND		2400	
Naphthalene	91-20-3	6200	19400	3200	
Toluene	108-88-3	69000	19400	36000	
Oxygenates:					
Acetophenone	98-86-2	ND		2400	
Acrolein	107-02-8	ND		39	
Allyl alcohol	107-18-6	ND		30	
Bis(2-ethylhexl) phthalate [Di-2-ethylhexyl	117-81-7	ND		2400	
phthalate]	85-68-7	ND		2400	
Butyl benzyl phthalate	95-48-7	ND		2400	
o-Cresol [2-Methyl phenol]					
m-Cresol [3-Methyl phenol]	108-39-4	ND		2400	
p-Cresol [4-Methyl phenol]	106-44-5	ND		2400	
Di-n-butyl phthalate	84-74-2	ND		2400	
Diethyl phthalate	84-66-2	ND		2400	
2, 4-Dimethylphenol	105-67-9	ND		2400	
Dimethyl phthalate	131-11-3	ND		2400	
Di-n-octyl phthalate	117-84-0	ND		2400	
Endothall	145-73-3	ND		100	
Ethyl methacrylate	97-63-2	ND		39	

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2-Ethoxyethanol [Ethylene glycol monoethyl ether]	110-80-5	ND		100	
Isobutyl alcohol	78-83-1	ND		39	
Isosafrole	120-58-1	ND		2400	
Methyl ethyl ketone [2-Butanone]	78-93-3	ND		39	
Methyl methacrylate	80-62-6	ND		39	
1, 4-Naphthoquinone	130-15-4	ND		2400	
Phenol	108-95-2	ND		2400	
Propargyl alcohol [2-Propyn-1-ol]	107-19-7	ND		30	
Safrole	94-59-7	ND		2400	
Sulfonated Organics:					
Carbon disulfide	75-15-0	ND		ND	39
Disulfoton	298-04-4	ND		ND	2400
Ethyl methanesulfonate	62-50-0	ND		ND	2400
Methyl methanesulfonate	66-27-3	ND		ND	2400
Phorate	298-02-2	ND		ND	2400
1, 3-Propane sultone	1120-71-4	ND		ND	100
Tetraethyldithiopyrophosphate [Sulfotepp]	3689-24-5	ND		ND	2400
Thiophenol [Benzenethiol]	108-98-5	ND		ND	30
O, O, O-Triethyl phosphorothioate	126-68-1	ND		ND	2400
Nitrogenated Organics:					
Acetonitrile [Methyl cyanide]	75-05-8	ND		ND	39
2-Acetylaminofluorene [2-AAF]	53-96-3	ND		ND	2400
Acrylonitrile	107-13-1	ND		ND	39
4-Aminobiphenyl	92-67-1	ND		ND	2400
4-Aminopyridine	504-24-5	ND		ND	100
Aniline	62-53-3	ND		ND	2400
Benzidine	92-87-5	ND		ND	2400
Dibenz[a, j]acridine	224-42-0	ND		ND	2400
O, O-Diethyl O-pyrazinyl Phosphorothioate [Thionazin]	297-97-2	ND		ND	2400
Dimethoate	60-51-5	ND		ND	2400
p-(Dimethylamino) azobenzene [4-dimethyl- aminoazobenzene]	60-11-7	ND		ND	2400
3,3'-Dimethylbenzidine	119-93-7	ND		ND	2400
α, α-Dimethylphenethylamine	122-09-8	ND		ND	2400
3, 3'-Dimethoxybenzidine	119-90-4	ND		ND	100
1, 3-Dinitrobenzene [m-Dinitrobenzene]	99-65-0	ND		ND	2400
4, 6-Dinitro-o-cresol	534-52-1	ND		ND	2400
2, 4-Dinitrophenol	51-28-5	ND		ND	2400
2, 4-Dinitrotoluene	121-14-2	ND		ND	2400
2, 6-Dinitrotoluene	606-20-2	ND		ND	2400
Dinoseb [2-sec-Butyl-4, 6-dinitrophenol]	88-85-7	ND		ND	2400
Diphenylamine	122-39-4	ND		ND	2400
Ethyl carbamate [Urethane]	51-79-6	ND		ND	100
Ethylenethiourea (2-Imidazolidinethione)	96-45-7	ND		ND	110
Famphur	52-85-7	ND		ND	2400
Methacrylonitrile	126-98-7	ND		ND	39
Methapyrilene	91-80-5	ND		ND	2400
Methomyl	16752-77-5	ND		ND	57
2-Methyllactonitrile, [Acetone cyanohydrin]	75-86-5	ND		ND	100

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Methyl parathion	298-00-0	ND	ND	2400
MNNG (N-Metyl-N-nitroso-N'-nitroguanidine)	70-25-7	ND	ND	110
1-Naphthylamine, [α-Naphthylamine]	134-32-7	ND	ND	2400
2-Naphthylamine, [β-Naphthylamine]	91-59-8	ND	ND	2400
Nicotine	54-11-5	ND	ND	100
4-Nitroaniline, [p-Nitroaniline]	100-01-6	ND	ND	2400
Nitrobenzene	98-95-3	ND	ND	2400
p-Nitrophenol, [p-Nitrophenol]	100-02-7	ND	ND	2400
5-Nitro-o-toluidine	99-55-8	ND	ND	2400
N-Nitrosodi-n-butylamine	924-16-3	ND	ND	2400
N-Nitrosodiethylamine	55-18-5	ND	ND	2400
N-Nitrosodiphenylamine, [Diphenylnitrosamine]	86-30-6	ND	ND	2400
N-Nitroso-N-methylethylamine	10595-95-6	ND	ND	2400
N-Nitrosomorpholine	59-89-2	ND	ND	2400
N-Nitrosophiperidine	100-75-4	ND	ND	2400
N-Nitrosopyrrolidine	930-55-2	ND	ND	2400
2-Nitropropane	79-46-9	ND	ND	30
Parathion	56-38-2	ND	ND	2400
Phenacetin	62-44-2	ND	ND	2400
1, 4-Phenylne diamine, [p-Phenylenediamine]	106-50-3	ND	ND	2400
N-Phenylthiourea	103-85-5	ND	ND	57
2-Picoline [alpha-Picoline]	109-06-8	ND	ND	2400
Propylthioracil, [6-Propyl-2-thiouracil]	51-52-5	ND	ND	100
Pyridine	110-86-1	ND	ND	2400
Strychnine	57-24-9	ND	ND	100
Thioacetamide	62-55-5	ND	ND	57
Thiofanox	39196-18-4	ND	ND	100
Thiourea	62-56-6	ND	ND	57
Toluene-2,4-diamine [2,4-Diaminotoluene]	95-80-7	ND	ND	57
Toluene-2, 6-diamine [2, 6-Diaminotoluene]	823-40-5	ND	ND ND	57 57
o-Toluidine	95-53-4	ND	ND	2400
p-Toluidine	106-49-0	ND	ND	100
1, 3, 5-Trinitrobenzene, [sym-Trinitobenzene]	99-35-4	ND	ND	2400
Halogenated Organic:				
Allyl chloride	107-05-1	ND	ND	39
Aramite	140-57-8	ND	ND	2400
Benzal chloride [Dichloromethyl benzene]	98-87-3	ND	ND	100
Benzyl chloride	100-44-77	ND	ND	100
bis(2-Chloroethyl)ether [Dichoroethyl ether]	111-44-4	ND	ND	2400
Bromoform [Tribromomethane]	75-25-2	ND	ND	39
Bromomethane [Methyl bromide]	74-83-9	ND	ND	39
4-Bromophenyl phenyl ether [p-Bromo diphenyl ether]	101-55-3	ND	ND	2400
Carbon tetrachloride	56-23-5	ND	ND	39
Chlordane	57-74-9	ND	ND	14
p-Chloroaniline	106-47-8	ND	ND	2400
Chlorobenzene	108-90-7	ND	ND	39

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Chlorobenzilate	510-15-6	ND	ND	2400
p-Chloro-m-cresol	59-50-7	ND	ND	2400
2-Chloroethyl vinyl ether	110-75-8	ND	ND	39
Chloroform	67-66-3	ND	ND	39
Chloromethane [Methyl chloride]	74-87-3	ND	ND	39
2-Chloronaphthalene [beta-Chloronaphthalene]	91-58-7	ND	ND	2400
2-Chlorophenol [o-Chlorophenol]	95-57-8	ND	ND	2400
Chloroprene [2-Chloro-1, 3-butadiene]	1126-99-8	ND	ND	39
2, 4-D [2, 4-Dichlorophenoxyacetic acid]	94-75-7	ND	ND	7.0
Diallate	2303-16-4	ND	ND	2400
1, 2-Dibromo-3-chloropropane	96-12-8	ND	ND	39
1, 2-Dichlorobenzene [o-Dichlorobenzene]	95-50-1	ND	ND	2400
1, 3-Dichlorobenzene [m-Dichlorobenzene]	541-73-1	ND	ND	2400
1, 4-Dichlorobenzene [p-Dichlorobenzene]	106-46-7	ND	ND	2400
3, 3'-Dichlorobenzidine	91-94-1	ND	ND	2400
Dichlorodifluoromethane [CFC-12]	75-71-8	ND	ND	39
1, 2-Dichloroethane [Ethylene dichloride]	107-06-2	ND	ND	39
1, 1-Dichloroethylene [Vinylidene chloride]	75-35-4	ND	ND	39
Dichloromethoxy ethane [Bis(2-chloro-Ethoxy)methane	111-91-1	ND	ND	2400
2,4-Dichlorophenol	120-83-2	ND	ND	2400
2, 6-Dichlorophenol	87-65-0	ND	ND	2400
1, 2-Dichloropropane [Propylene dichloride]	78-87-5	ND	ND	39
cis-1, 3-Dichloropropylene	10061-01-5	ND	ND	39
trans-1, 3-Dichloropropylene	10061-02-6	ND	ND	39
1,3-Dichloro-2propanol	96-23-1	ND	ND	30
Endosulfan I	959-98-8	ND	ND	1.4
Endosulfan II	33213-65-9	ND	ND	1.4
Endrin	72-20-8	ND	ND	1.4
Endrin aldehyde	7421-93-4	ND	ND	1.4
Endrin Ketone	53494-70-5	ND	ND	1.4
Epichlorohydrin [1-Chloro-2, 3-epoxy propane]	106-89-8	ND	ND	30
Ethylidene dichloride [1, 1-Dichloroethane]	75-34-3	ND	ND	39
2-Fluoroacetamide	640-19-7	ND	ND	100
Heptachlor	76-44-8	ND	ND	1.4
Heptachlor epoxide	1024-57-3	ND	ND	2.8
Hexachlorobenzene	118-74-1	ND	ND	2400
Hexachloro-1, 3-butadiene [Hexachlorobutadiene]	87-68-3	ND	ND	2400
Hexachlorocyclopentadiene	77-47-4	ND	ND	2400
Hexachloroethane	67-72-1	ND	ND	2400
Hexachlorophene	70-30-4	ND	ND	59000
Hexachloropropene [Hexachloropropylene]	1888-71-7	ND	ND	2400
Isodrin	465-73-6	ND	ND	2400
Kepone [Chlordecone]	143-50-0	ND	ND	4700
Lindane [gamma-BHC] [gamma-	58-89-9	ND	ND	1.4

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Hexachloro-cyclohexane]					
Methylene chloride [Dichloromethane]	75-09-2	ND		ND	39
4, 4'-Methylene-bis(2-chloroaniline)	101-14-4	ND		ND	100
Methyl iodide [Iodomethane]	74-88-4	ND		ND	39
Pentachlorobenzene	608-93-5	ND		ND	2400
Pentachloroethane	76-01-7	ND		ND	39
Pentachloronitrobenzene [PCNB] [Quintobenzene] [Quintozene]	82-68-8	ND		ND	2400
Pentachlorophenol	87-86-5	ND		ND	2400
Pronamide	23950-58-5	ND		ND	2400
Silvex [2, 4, 5-Trichlorophenoxypropionic acid]	93-72-1	ND		ND	7.0
2, 3, 7, 8-Tetrachlorodibenzo-p-dioxin [2, 3, 7, 8-TCDD]	1746-01-6	ND		ND	30
1, 2, 4, 5-Tetrachlorobenzene	95-94-3	ND		ND	2400
1, 1, 2, 2-Tetrachloroethane	79-34-5	ND		ND	39
Tetrachloroethylene [Perchloroethylene]	127-18-4	ND		ND	39
2, 3, 4, 6-Tetrachlorophenol	58-90-2	ND		ND	2400
1, 2, 4-Trichlorobenzene	120-82-1	ND		ND	2400
1,1,1-Trichloroethane [Methyl chloroform]	71-55-6	ND		ND	39
1,1,2-Trichloroethane [Vinyl trichloride]	79-00-5	ND		ND	39
Trichloroethylene	79-01-6	ND		ND	39
Trichlorofluoromethane [Trichloromono-Fluoromethane]	75-69-4	ND		ND	39
2, 4, 5-Trichlorophenol	95-95-4	ND		ND	2400
2, 4, 6-Trichlorophenol	88-06-2	ND		ND	2400
1, 2, 3-Trichloropropane	96-18-4	ND		ND	39
Vinyl Chloride	75-01-4	ND		ND	39

Notes:

NA –Not Applicable.
ND –Nondetect.

[1]25 or individual halogenated organics listed below.

[a] Absence of PCBs can also be demonstrated by using appropriate screening methods, e.g., immunoassay kit for PCB in oils (Method 4020) or colorimetric analysis for PCBs in oil (Method 9079).
[b] Some minimum required detection limits are above the total halogen limit of 540 ppm. The detection limits reflect what was achieved during EPA testing and analysis and also analytical complexity associated with measuring all halogen compounds on Appendix VIII at low levels. EPA recognizes that in practice the presence of these compounds will be functionally limited by the molecular weight and the total halogen limit of 540 ppm.

3. Implementation.

Waste that meets the comparable or syngas fuel specifications provided by parts 1 or 2 of this subparagraph (these constituent levels must be achieved by the comparable fuel when generated, or as a result of treatment or blending, as provided in subparts 3(iii) or (iv) of this subparagraph) is excluded from the definition of solid waste provided that the following requirements are met:

(i) Notices.

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For purposes of this subparagraph, the person claiming and qualifying for the exclusion is called the comparable/syngas fuel generator and the person burning the comparable/syngas fuel is called the comparable/syngas burner. The person who generates the comparable fuel or syngas fuel must claim and certify to the exclusion.

(I) Commissioner, Department of Environment and Conservation (Director, Division of Solid Waste Management and Director of Division of Air Pollution Control).

I. The generator must submit a one-time notice to the Commissioner and Directors of Solid Waste Management and Air Pollution Control, in whose jurisdiction the exclusion is being claimed and where the comparable/syngas fuel will be burned, certifying compliance with the conditions of the exclusion and providing documentation as required by subitem 3(i)(I)III of this subparagraph;

II. If the generator is a company that generates comparable/syngas fuel at more than one facility, the generator shall specify at which sites the comparable/syngas fuel will be generated;

III. A comparable/syngas fuel generator's notification to the Commissioner must contain the following items:

A. The name, address, and Installation Identification number of the person/facility claiming the exclusion;

B. The applicable Hazardous Waste Codes for the hazardous waste;

C. Name and address of the units, meeting the requirements of subpart 3(ii) of this subparagraph, that will burn the comparable/syngas fuel; and

D. The following statement is signed and submitted by the person claiming the exclusion or his authorized representative:

Under penalty of criminal and civil prosecution for making or submitting false statements, representations, or omissions, I certify that the requirements of Rule 1200-1-11-.02(4)(i) have been met for all waste identified in this notification. Copies of the records and information required at Rule 1200-1-11-.02(4)(i)3(x) are available at the comparable/syngas fuel generator's facility. Based on my inquiry of the individuals immediately responsible for obtaining the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(II) Public notice.

Prior to burning an excluded comparable/syngas fuel, the burner must publish in a major newspaper of general circulation local to the site where the fuel will be burned, a notice entitled ``Notification of

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Burning a Comparable/Syngas Fuel Excluded Under the Resource Conservation and Recovery Act" containing the following information:

I. Name, address, and Installation Identification number of the generating facility;

II. Name and address of the unit(s) that will burn the comparable/syngas fuel;

III. A brief, general description of the manufacturing, treatment, or other process generating the comparable/syngas fuel;

IV. An estimate of the average and maximum monthly and annual quantity of the waste claimed to be excluded; and

V. Name and mailing address of the Commissioner to whom the claim was submitted.

(ii) Burning.

The comparable/syngas fuel exclusion for fuels meeting the requirements of parts 1 or 2 and subpart 3(i) of this subparagraph applies only if the fuel is burned in the following units that also shall be subject to Federal/State/local air emission requirements, including all applicable Clean Air Act, Maximum Achievable Control Technologies (CAA MACT) requirements:

(I) Industrial furnaces as defined in Rule 1200-1-11-.01(2)(a);

(II) Boilers, as defined in Rule 1200-1-11-.01(2)(a), that are further defined as follows:

I. Industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes; or

II. Utility boilers used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale;

(III) Hazardous waste incinerators subject to regulation under Rule 1200-1-11-.05(15) or Rule 1200-1-11-.06(15) or applicable CAA MACT standards.

(IV) Gas turbines used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale.

(iii) Blending to meet the viscosity specification.

A hazardous waste blended to meet the viscosity specification shall:

(I) As generated and prior to any blending, manipulation, or processing meet the constituent and heating value specifications of item 1(i)(I) and subpart 1(ii) of this subparagraph;

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(II) Be blended at a facility that is subject to the applicable requirements of Rules 1200-1-11-.05 and .06, or Rule 1200-1-11-.03(4)(e); and

(III) Not violate the dilution prohibition of subpart 3(vi) of this subparagraph.

(iv) Treatment to meet the comparable fuel exclusion specifications.

(I) A hazardous waste may be treated to meet the exclusion specifications of subparts 1(i) and (ii) of this subparagraph provided the treatment:

I. Destroys or removes the constituent listed in the specification or raises the heating value by removing or destroying hazardous constituents or materials;

II. Is performed at a facility that is subject to the applicable requirements of Rules 1200-1-11-.05 and .06, or Rule 1200-1-11-.03(4)(e); and

III. Does not violate the dilution prohibition of subpart 3(vi) of this subparagraph.

(II) Residuals resulting from the treatment of a hazardous waste listed in paragraph 4 of this Rule to generate a comparable fuel remain a hazardous waste.

(v) Generation of a syngas fuel.

(I) A syngas fuel can be generated from the processing of hazardous wastes to meet the exclusion specifications of part 2 of this subparagraph provided the processing:

I. Destroys or removes the constituent listed in the specification or raises the heating value by removing or destroying constituents or materials;

II. Is performed at a facility that is subject to the applicable requirements of Rules 1200-1-11-.05 and .06, or Rule 1200-1-11-.03(4)(e); or is an exempt recycling unit pursuant to part (1)(f)3 of this Rule; and

III. Does not violate the dilution prohibition of subpart 3(vi) of this subparagraph.

(II) Residuals resulting from the treatment of a hazardous waste listed in paragraph 4 of this Rule to generate a syngas fuel remain a hazardous waste.

(vi) Dilution prohibition for comparable and syngas fuels.

No generator, transporter, handler, or owner or operator of a treatment, storage, or disposal facility shall in any way dilute a hazardous waste to meet the exclusion specifications of item 1(i)(I), subpart 1(ii) or part 2 of this subparagraph.

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(vii) Waste analysis plans.

The generator of a comparable/syngas fuel shall develop and follow a written waste analysis plan which describes the procedures for sampling and analysis of the hazardous waste to be excluded. The waste analysis plan shall be developed in accordance with the applicable sections of the ``Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW-846). The plan shall be followed and retained at the facility excluding the waste.

(I) At a minimum, the plan must specify:

I. The parameters for which each hazardous waste will be analyzed and the rationale for the selection of those parameters;

II. The test methods which will be used to test for these parameters;

III. The sampling method which will be used to obtain a representative sample of the waste to be analyzed;

IV. The frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up to date; and

V. If process knowledge is used in the waste determination, any information prepared by the generator in making such determination.

(II) The waste analysis plan shall also contain records of the following:

I. The dates and times waste samples were obtained, and the dates the samples were analyzed;

II. The names and qualifications of the person(s) who obtained the samples;

III. A description of the temporal and spatial locations of the samples;

IV. The name and address of the laboratory facility at which analyses of the samples were performed;

V. A description of the analytical methods used, including any clean-up and sample preparation methods;

VI. All quantitation limits achieved and all other quality control results for the analysis (including method blanks, duplicate analyses, matrix spikes, etc.), laboratory quality assurance data, and description of any deviations from analytical methods written in the plan or from any other activity written in the plan which occurred;

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VII. All laboratory results demonstrating that the exclusion specifications have been met for the waste; and

VIII. All laboratory documentation that support the analytical results, unless a contract between the claimant and the laboratory provides for the documentation to be maintained by the laboratory for the period specified in subpart 3(xi) of this subparagraph and also provides for the availability of the documentation to the claimant upon request.

(III) Syngas fuel generators shall submit for approval, prior to performing sampling, analysis, or any management of a syngas fuel as an excluded waste, a waste analysis plan containing the elements of item 3(vii)(I) of this subparagraph to the appropriate regulatory authority. The approval of waste analysis plans must be stated in writing and received by the facility prior to sampling and analysis to demonstrate the exclusion of a syngas. The approval of the waste analysis plan may contain such provisions and conditions as the regulatory authority deems appropriate.

(viii) Comparable fuel sampling and analysis.

(I) General.

For each waste for which an exclusion is claimed, the generator of the hazardous waste must test for all the constituents on appendix VIII to this Rule, except those that the generator determines, based on testing or knowledge, should not be present in the waste. The generator is required to document the basis of each determination that a constituent should not be present. The generator may not determine that any of the following categories of constituents should not be present:

I. A constituent that triggered the toxicity characteristic for the waste constituents that were the basis of the listing of the waste stream, or constituents for which there is a treatment standard for the waste code in Rule 1200-1-11-.10(3)(a);

II. A constituent detected in previous analysis of the waste;

III. Constituents introduced into the process that generates the waste; or

IV. Constituents that are byproducts or side reactions to the process that generates the waste.

Note to subpart 3(viii): Any claim under this subparagraph must be valid and accurate for all hazardous constituents; a determination not to test for a hazardous constituent will not shield a generator from liability should that constituent later be found in the waste above the exclusion specifications.

(II) For each waste for which the exclusion is claimed where the generator of the comparable/syngas fuel is not the original generator of the hazardous waste, the generator of the comparable/syngas fuel may not use process knowledge pursuant to item 3(viii)(I) of this subparagraph

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and must test to determine that all of the constituent specifications of subpart 1(ii) and part 2 of this subparagraph have been met.

(III) The comparable/syngas fuel generator may use any reliable analytical method to demonstrate that no constituent of concern is present at concentrations above the specification levels. It is the responsibility of the generator to ensure that the sampling and analysis are unbiased, precise, and representative of the waste. For the waste to be eligible for exclusion, a generator must demonstrate that:

I. Each constituent of concern is not present in the waste above the specification level at the 95% upper confidence limit around the mean; and

II. The analysis could have detected the presence of the constituent at or below the specification level at the 95% upper confidence limit around the mean.

(IV) Nothing in this item preempts, overrides or otherwise negates the provision in Rule 1200-1-11-.03(1)(b), which requires any person who generates a solid waste to determine if that waste is a hazardous waste.

(V) In an enforcement action, the burden of proof to establish conformance with the exclusion specification shall be on the generator claiming the exclusion.

(VI) The generator must conduct sampling and analysis in accordance with their waste analysis plan developed under subpart 3(vii) of this subparagraph.

(VII) Syngas fuel and comparable fuel that has not been blended in order to meet the kinematic viscosity specifications shall be analyzed as generated.

(VIII) If a comparable fuel is blended in order to meet the kinematic viscosity specifications, the generator shall:

I. Analyze the fuel as generated to ensure that it meets the constituent and heating value specifications; and

II. After blending, analyze the fuel again to ensure that the blended fuel continues to meet all comparable/syngas fuel specifications.

(IX) Excluded comparable/syngas fuel must be re-tested, at a minimum, annually and must be retested after a process change that could change the chemical or physical properties of the waste.

(ix) Speculative accumulation.

Any persons handling a comparable/syngas fuel are subject to the speculative accumulation test under subpart .02(1)(b)3(iv).

(x) Records.

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The generator must maintain records of the following information on-site:

(I) All information required to be submitted to the implementing authority as part of the notification of the claim:

I. The owner/operator name, address, and facility Installation ID number of the person claiming the exclusion;

II. The applicable Hazardous Waste Codes for each hazardous waste excluded as a fuel; and

III. The certification signed by the person claiming the exclusion or his authorized representative.

(II) A brief description of the process that generated the hazardous waste and process that generated the excluded fuel, if not the same;

(III) An estimate of the average and maximum monthly and annual quantities of each waste claimed to be excluded;

(IV) Documentation for any claim that a constituent is not present in the hazardous waste as required under item 3(viii)(I) of this subparagraph;

(V) The results of all analyses and all detection limits achieved as required under subpart 3(viii) of this subparagraph;

(VI) If the excluded waste was generated through treatment or blending, documentation as required under subpart 3(iii) or (iv) of this subparagraph;

(VII) If the waste is to be shipped off-site, a certification from the burner as required under subpart 3(xii) of this subparagraph;

(VIII) A waste analysis plan and the results of the sampling and analysis that includes the following:

I. The dates and times waste samples were obtained, and the dates the samples were analyzed;

II. The names and qualifications of the person(s) who obtained the samples;

III. A description of the temporal and spatial locations of the samples;

IV. The name and address of the laboratory facility at which analyses of the samples were performed;

V. A description of the analytical methods used, including any clean-up and sample preparation methods;

VI. All quantitation limits achieved and all other quality control results for the analysis (including method blanks, duplicate analyses, matrix spikes, etc.), laboratory quality assurance

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data, and description of any deviations from analytical methods written in the plan or from any other activity written in the plan which occurred;

VII. All laboratory analytical results demonstrating that the exclusion specifications have been met for the waste; and

VIII. All laboratory documentation that support the analytical results, unless a contract between the claimant and the laboratory provides for the documentation to be maintained by the laboratory for the period specified in subpart 3(xi) of this subparagraph and also provides for the availability of the documentation to the claimant upon request; and

(IX) If the generator ships comparable/syngas fuel off-site for burning, the generator must retain for each shipment the following information on-site:

I. The name and address of the facility receiving the comparable/syngas fuel for burning;

II. The quantity of comparable/syngas fuel shipped and delivered;

III. The date of shipment or delivery;

IV. A cross-reference to the record of comparable/syngas fuel analysis or other information used to make the determination that the comparable/syngas fuel meets the specifications as required under subpart 3(viii) of this subparagraph; and

V. A one-time certification by the burner as required under subpart 3(xii) of this subparagraph.

(xi) Records retention.

Records must be maintained for the period of three years. A generator must maintain a current waste analysis plan during that three year period.

(xii) Burner certification.

Prior to submitting a notification to the Commissioner, a comparable/syngas fuel generator who intends to ship their fuel off-site for burning must obtain a one-time written, signed statement from the burner:

(I) Certifying that the comparable/syngas fuel will only be burned in an industrial furnace or boiler, utility boiler, or hazardous waste incinerator, as required under subpart 3(ii) of this subparagraph;

(II) Identifying the name and address of the units that will burn the comparable/syngas fuel; and

(III) Certifying that the state in which the burner is located is authorized to exclude wastes as comparable/syngas fuel under the provisions of this subparagraph.

(xiii) Ineligible waste codes.

Wastes that are listed because of presence of dioxins or furans, as set out in Appendix VII of this Rule, are not eligible for this exclusion, and any fuel produced from or otherwise containing these wastes remains a hazardous waste subject to full hazardous waste management requirements.

(5) Appendices to Rule 1200-1-11-.02 [Appendices to 40 CFR 261]

Appendix I -- Representative Sampling Methods

The methods and equipment used for sampling waste materials will vary with the form and consistency of the waste materials to be sampled. Samples collected using the sampling protocols listed below, for sampling waste with properties similar to the indicated materials, will be considered by the Department to be representative of the waste.

Extremely viscous liquid -- ASTM Standard D140-70 Crushed or powdered material -- ASTM Standard D346-75 Soil or rock-like material -- ASTM Standard D420-69 Soil-like material -- ASTM Standard D1452-65

Fly Ash-like material -- ASTM Standard D2234-76 (ASTM Standards are available from ASTM, 1916 Race St., Philadelphia, PA 19103)

Containerized liquid wastes -- "COLIWASA" described in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods,"[1a] U.S. Environmental Protection Agency, Office of Solid Waste, Washington, D.C. 20460. (Copies may be obtained from Solid Waste Information, U.S. Environmental Protection Agency, 26 W. St. Clair St., Cincinnati, Ohio 45268)

Liquid waste in pits, ponds, lagoons, and similar reservoirs -- "Pond Sampler" described in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods."[1a]

This manual also contains additional information on application of these protocols.

Appendix II - Method 1311 Toxicity Characteristic Leaching Procedure (TCLP)

(Note: The TCLP (Method 1311) is published in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, listed in Rule 1200-1-11-.01(2)(b).)

Appendix III to Part 261-Chemical Analysis Test Methods

(Note: Appropriate analytical procedures to determine whether a sample contains a given toxic constituent are specified in Chapter Two, "Choosing the Correct Procedure" found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, listed in Rule 1200-1-11-.01(2)(b). Prior to final sampling and analysis method selection, the individual should consult the specific section or method described in SW-846 for additional guidance on which of the approved methods should be employed for a specific sample analysis situation.)

Appendix IV -- (RESERVED) - Radioactive Waste Test Methods

Appendix V -- (RESERVED) - Infectious Waste Treatment Specifications

Appendix VI -- (RESERVED) - Etiologic Agents

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(Note: 1[a] These methods are also described in "Samplers and Sampling Procedures for Hazardous Waste Streams," EPA 600/2-80-018, January 1980.)

Appendix VII -- Basis for Listing Hazardous Waste

Hazardous Waste Code	Hazardous Constituents for Which Listed
F001	Tetrachloroethylene, methylene chloride trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chlorinated fluorocarbons.
F002	Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trichfluoroethane, ortho-dichlorobenzene, trichlorofluoromethane.
F003	N.A.
F004	Cresols and cresylic acid, nitrobenzene.
F005	Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, 2-ethoxyethanol, benzene, 2-nitropropane.
F006	Cadmium, hexavalent chromium, nickel, cyanide (complexed).
F007	Cyanide (salts).
F008	Cyanide (salts).
F009	Cyanide (salts).
F010	Cyanide (salts).
F011	Cyanide (salts).
F012	Cyanide (complexed).
F019	Hexavalent chromium, cyanide (complexed).
F020	Tetra- and pentachlorodibenzo-p-dioxins; tetra and pentachlorodi-benzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.
F021	Penta- and hexachlorodibenzo-p-dioxins; penta- and hexachlorodibenzofurans; pentachlorophenol and its derivatives.
F022	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans.
F023	Tetra-, and pentachlorodibenzo-p-dioxins; tetra- and pentachlorodibenzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.
F024	Chloromethane, dichloromethane, trichloromethane, carbon tetrachloride, chloroethylene, 1,1-dichloroethane, 1,2-dichloroethane, trans-1-2-dichloroethylene, 1,1-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethylene, 1,1,1,2-tetra-chloroethane, 1,1,2,2-tetrachloroethane, tetrachloroethylene, pentachloroethane, hexachloroethane, allyl chloride (3-chloropropene), dichloropropane, dichloropropene, 2-chloro-1,3-butadiene, hexachloro-1,3-butadiene, hexachlorocyclopentadiene, hexachlorocyclohexane, benzene, chlorbenzene, dichlorobenzenes, 1,2,4-trichlorobenzene, tetrachlorobenzene, pentachlorobenzene, hexachlorobenzene, toluene, naphthalene.

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F025	Chloromethane; Dichloromethane; Trichloromethane; Carbon tetrachloride; Chloroethylene; 1,1-Dichloroethane; 1,2-Dichloroethane; trans-1,2-Dichloroethylene; 1,1-Dichloroethylene; 1,1,1-Trichloroethane; 1,1,2-Trichloroethane; Trichloroethylene; 1,1,1,2-Tetrachloroethane; 1,1,2,2-Tetrachloroethane; Tetrachloroethylene; Pentachloroethane; Hexachloroethane; Allyl chloride (3-Chloropropene); Dichloropropane; Dichloropropene; 2-Chloro-1,3-butadiene; Hexachloro-1,3-butadiene; Hexachlorocyclopentadiene; Benzene; Chlorobenzene; Dichlorobenzene; 1,2,4-Trichlorobenzene; Tetrachlorobenzene; Pentachlorobenzene; Hexachlorobenzene; Toluene; Naphthalene.
F026	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans.
F027	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.
F028	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.
F032	Benz(a)anthracene, benzo(a)pyrene, dibenz(a,h)-anthracene,indeno(1,2,3-cd)pyrene, pentachlorophenol, arsenic, chromium, tetra-, penta-, hexa-, heptachlorodibenzo-p-dioxins, tetra-, penta-, hexa-, heptachlorodibenzofurans.
F034	Benz(a)anthracene, benzo(k)fluoranthene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, naphthalene, arsenic, chromium.
F035	Arsenic, chromium, lead.
F037	Benzene, benzo(a)pyrene, chrysene, lead, chromium.
F038	Benzene, benzo(a)pyrene chrysene, lead, chromium.
F039	All constituents for which treatment standards are specified for multi-source leachate (wastewaters and nonwastewaters) under 40 CFR 268.43(a), Table CCW.
K001	Pentachlorophenol, phenol, 2-chlorophenol, p-chloro-m-cresol, 2,4-dimethylphenyl, 2,4-dinitrophenol, trichlorophenols, tetrachlorophenols, 2,4-dinitrophenol, cresosote, chrysene, naphthalene, fluoranthene, benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, benz(a)anthracene, dibenz(a)anthracene, acenaphthalene.
K002	Hexavalent chromium, lead
K003	Hexavalent chromium, lead.
K004	Hexavalent chromium.
K005	Hexavalent chromium, lead.
K006	Hexavalent chromium.
K007	Cyanide (complexed), hexavalent chromium.
K008	Hexavalent chromium.
K009	Chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid.
K010	Chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid, chloroacetaldehyde.
K011	Acrylonitrile, acetonitrile, hydrocyanic acid.

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K013	Hydrocyanic acid, acrylonitrile, acetonitrile.
K014	Acetonitrile, acrylamide.
K015	Benzyl chloride, chlorobenzene, toluene, benzotrichloride.
K016	Hexachlorobenzene, hexachlorobutadiene, carbon tetrachloride, hexachloroethane, perchloroethylene.
K017	Epichlorohydrin, chloroethers [bis(chloromethyl) ether and bis (2-chloroethyl) ethers], trichloropropane, dichloropropanols.
K018	1,2-dichloroethane, trichloroethylene, hexachlorobutadiene, hexachlorobenzene.
K019	Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloroethanes (1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride.
K020	Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloroethanes (1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride.
K021	Antimony, carbon tetrachloride, chloroform.
K022	Phenol, tars (polycyclic aromatic hydrocarbons).
K023	Phthalic anhydride, maleic anhydride.
K024	Phthalic anhydride, 1,4-naphthoquinone.
K025	Meta-dinitrobenzene, 2,4-dinitrotoluene.
K026	Paraldehyde, pyridines, 2-picoline.
K027	Toluene diisocyanate, toluene-2, 4-diamine.
K028	1,1,1-trichloroethane, vinyl chloride.
K029	1,2-dichloroethane, 1,1,1-trichloroethane, vinyl chloride, vinylidene chloride, chloroform.
K030	Hexachlorobenzene, hexachlorobutadiene, hexachloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, ethylene dichloride.
K031	Arsenic.
K032	Hexachlorocyclopentadiene.
K033	Hexachlorocyclopentadiene.
K034	Hexachlorocyclopentadiene.
K035	Creosote, chrysene, naphthalene, fluoranthene benzo(b) fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd) pyrene, benzo(a)anthracene, dibenzo(a)anthracene, acenaphthalene.
K036	Toluene, phosphorodithioic and phosphorothioic acid esters.
K037	Toluene, phosphorodithioic and phosphorothioic acid esters.
K038	Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters.
K039	Phosphorodithioic and phosphorothioic acid esters.
K040	Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters.

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K041	Toxaphene.
K042	Hexachlorobenzene, ortho-dichlorobenzene.
K043	2,4-dichlorophenol, 2,6-dichlorophenol, 2,4,6-trichlorophenol.
K044	N.A.
K045	N.A.
K046	Lead.
K047	N.A.
K048	Hexavalent chromium, lead.
K049	Hexavalent chromium, lead.
K050	Hexavalent chromium.
K051	Hexavalent chromium, lead.
K052	Lead.
K060	Cyanide, napthalene, phenolic compounds, arsenic.
K061	Hexavalent chromium, lead, cadmium.
K062	Hexavalent chromium, lead.
K069	Hexavalent chromium, lead, cadmium.
K071	Mercury.
K073	Chloroform, carbon tetrachloride, hexacholroethane, trichloroethane, tetrachloroethylene, dichloroethylene, 1,1,2,2-tetrachloroethane.
K083	Aniline, diphenylamine, nitrobenzene, phenylenediamine.
K084	Arsenic.
K085	Benzene, dichlorobenzenes, trichlorobenzenes, tetrachlorobenzenes, pentachlorobenzene, hexachlorobenzene, benzyl chloride.
K086	Lead, hexavalent chromium.
K087	Phenol, naphthalene.
K088	Cyanide (complexes).
K093	Phthalic anhydride, maleic anhydride.
K094	Phthalic anhydride.
K095	1,1,2-trichloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane.
K096	1,2-dichloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane.
K097	Chlordane, heptachlor.
K098	Toxaphene.
K099	2,4-dichlorophenol, 2,4,6-trichlorophenol.
K100	Hexavalent chromium, lead, cadmium.

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K101	Arsenic.
K102	Arsenic.
K103	Aniline, nitrobenzene, phenylenediamine.
K104	Aniline, benzene, diphenylamine, nitrobenzene, phenylenediamine.
K105	Benzene, monochlorobenzene, dichlorobenzenes, 2,4,6-trichlorophenol.
K106	Mercury.
K107	1,1-Dimethylhydrazine (UDMH).
K108	1,1-Dimethylhydrazine (UDMH).
K109	1,1-Dimethylhydrazine (UDMH).
K110	1,1-Dimethylhydrazine (UDMH).
K111	2,4-Dinitrotoluene.
K112	2,4-Toluenediamine, o-toluidine, p-toluidine, aniline.
K113	2,4-Toluenediamine, o-toluidine, p-toluidine, aniline.
K114	2,4-Toluenediamine, o-toluidine, p-toluidine.
K115	2,4-Toluenediamine.
K116	Carbon tetrachloride, tetrachloroethylene, chloroform, phosgene.
K117	Ethylene dibromide.
K118	Ethylene dibromide.
K123	Ethylene thiourea.
K124	Ethylene thiourea.
K125	Ethylene thiourea.
K126	Ethylene thiourea.
K131	Dimethyl sulfate, methyl bromide.
K132	Methyl bromide.
K136	Ethylene dibromide.
K141	Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene.
K142	Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene.
K143	Benzene, benz(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene.
K144	Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene.
K145	Benzene, benz(a)anthracene, benzo(a)pyrene, dibenz(a,h)anthracene, naphthalene.
K147	Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene.

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K148	Benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene.
K149	Benzotrichloride, benzyl chloride, chloroform, chloromethane, chlorobenzene, 1,4-dichlorobenzene, hexachlorobenzene, pentachlorobenzene, 1,2,4,5-tetrachlorobenzene, toluene.
K150	Carbon tetrachloride, chloroform, chloromethane, 1,4-dichlorobenzene, hexachlorobenzene, pentachlorobenzene, 1,2,4,5-tetrachlorobenzene, 1,1,2,2-tetrachloroethane, tetrachloroethylene, 1,2,4-trichlorobenzene.
K151	Benzene, carbon tetrachloride, chloroform, hexachlorobenzene, pentachlorobenzene, toluene, 1,2,4,5-tetrachlorobenzene, tetrachloroethylene.
K156	Benomyl, carbaryl, carbendazim, carbofuran, carbosulfan, formaldehyde, methylene chloride, triethylamine.
K157	Carbon tetrachloride, formaldehyde, methyl chloride, methylene chloride, pyridine, triethylamine.
K158	Benomyl, carbendazim, carbofuran, carbosulfan, chloroform, methylene chloride.
K159	Benzene, butylate, eptc, molinate, pebulate, vernolate.
K161	Antimony, arsenic, metam-sodium, ziram.
K169	Benzene.
K170	Benzo(a)pyrene, dibenz(a,h)anthracene, benzo (a) anthracene, benzo (b)fluoranthene, benzo(k)fluoranthene, 3-methylcholanthrene, 7, 12-dimethylbenz(a)anthracene.
K171	Benzene, arsenic.
K172	Benzene, arsenic.
K174	1, 2, 3, 4, 6, 7, 8-Heptachlorodibenzo-p-dioxin (1, 2, 3, 4, 6, 7, 8-HpCDD), 1, 2, 3, 4, 6, 7, 8-Heptachlorodibenzofuran (1, 2, 3, 4, 6, 7, 8-HpCDF), 1, 2, 3, 4, 7, 8, 9-Heptachlorodibenzofuran (1, 2, 3, 6, 7, 8, 9-HpCDF), HxCDDs (All Hexachlorodibenzo-p-dioxins), HxCDFs (All Hexachlorodibenzofurans), PeCDDs (All Pentachlorodibenzo-p-dioxins), OCDD (1, 2, 3, 4, 6, 7, 8, 9-Octachlorodibenzo-p-dioxin, OCDF (1, 2, 3, 4, 6, 7, 8, 9-Octachlorodibenzofuran), PeCDFs (All Pentachlorodibenzofurans), TCDDs (All tetrachlorodi-benzo-p-dioxins), TCDFs (All tetrachlorodibenxofurans).
K175	Mercury
K176	Arsenic, Lead
K177	Antimony
K178	Thallium

FOOTNOTE: N.A. -- Waste is hazardous because it fails the test for the characteristic of ignitability, corrosivity, or reactivity.

Appendix VIII -- Hazardous Constituents

Common Name	Chemical Abstracts Name	Chemical Abstracts No.	Hazardous Waste Code

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A2213	Ethanimidothioic acid, 2- (dimethylamino) -N-hydroxy-2-oxo-, methyl ester	30558-43-1	U394
Acetonitrile	Same	75-05-8	U003
Acetophenone	Ethanone, 1-phenyl-	98-86-2	U004
2-Acetylaminefluarone	Acetamide, N-9H-fluoren-2-yl-	53-96-3	U005
Acetyl chloride	Same	75-36-5	U006
1-Acetyl-2-thiourea	Acetamide, N-(aminothioxomethyl)-	591-08-2	P002
Acrolein	2-Propenal	107-02-8	P003
Acrylamide	2-Propenamide	79-06-1	U007
Acrylonitrile	2-Propenenitrile	107-13-1	U009
Aflatoxins	Same	1402-68-2	
Aldicarb	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime	116-06-3	P070
Aldicarb sulfone	Propanal, 2-methyl-2- (methylsulfonyl) -, O-[(methylamino) carbonyl] oxime	1646-88-4	P203
Aldrin	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha, 8abeta)-	309-00-2	P004
Allyl alcohol	2-Propen-1-ol	107-18-6	P005
Allyl chloride	1-Propane, 3-chloro	107-18-6	
Aluminum phosphide	Same	20859-73-8	P006
4-Aminobiphenyl	[1,1'-Biphenyl]-4-amine	92-67-1	
5-(Aminomethyl)-3-isoxazolol	3(2H)-Isoxazolone, 5-(aminomethyl)-	2763-96-4	P007
4-Aminopyridine	4-Pyridinamine	504-24-5	P008
Amitrole	1H-1,2,4-Triazol-3-amine	61-82-5	U011
Ammonium vanadate	Vanadic acid, ammonium salt	7803-55-6	P119
Aniline	Benzenamine	62-53-3	U012
Antimony	Same	7440-36-0	
Antimony compounds, N.O.S.[1]			
Aramite	Sulfurous acid, 2-chloroethyl 2-[4-(1,1-dimethylethyl)phenoxy]-1-methylethyl ester	140-57-8	
Arsenic	Same	7440-38-2	
Arsenic compounds, N.O.S.[1]			

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Arsenic acid	Arsenic acid H_3AsO_4	7778-39-4	P010
Arsenic pentoxide	Arsenic oxide As_2O_5	1303-28-2	P011
Arsenic trioxide	Arsenic oxide As_2O_3	1327-53-3	P012
Auramine	Benzenamine, 4,4'-carbonimidoylbis[N,N-dimethyl	492-80-8	U014
Azaserine	L-Serine, diazoacetate (ester)	115-02-6	U015
Barban	Carbamic acid, (3-chlorophenyl) -, 4-chloro-2-butynyl ester	101-27-9	U280
Barium	Same	7440-39-3	
Barium compounds, N.O.S.[1]			
Barium cyanide	Same	542-62-1	P013
Bendiocarb	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate	22781-23-3	U278
Bendiocarb phenol	1,3-Benzodioxol-4-ol, 2,2-dimethyl-,	22961-82-6	U364
Benomyl	Carbamic acid, [1- [(butylamino) carbonyl]-1H-benzimidazol-2-yl] -, methyl ester	17804-35-2	U271
Benz[c]acridine	Same	225-51-4	U016
Benz[a]anthracene	Same	56-55-3	U018
Benzal chloride	Benzene, (dichloromethyl)-	98-87-3	U017
Benzene	Same	71-43-2	U019
Benzenearsonic acid	Arsonic acid, phenyl-	98-05-5	
Benzidine	[1,1'-Biphenyl]-4,4'-diamine	92-87-5	U021
Benzo[b]fluoranthene	Benz[e]acephenanthrylene	205-99-2	
Benzo[j]fluoranthene	Same	205-82-3	
Benzo(k)fluoranthene	Same	207-08-9	
Benzo[a]pyrene	Same	50-32-8	U022
p-Benzoquinone	2,5-Cyclohexadiene-1,4-dione	106-51-4	U197
Benzotrichloride	Benzene, (trichloromethyl)-	98-07-7	U023
Benzyl chloride	Benzene, (chloromethyl)-	100-44-7	P028
Beryllium powder	Same	7440-41-7	P015
Beryllium compounds, N.O.S.[1]			
Bis(pentamethylene)-thiuram tetrasulfide	Piperidine, 1,1’-(tetrathiodicarbonothioyl)-bis-	120-54-7	
Bromoacetone	2-Propanone, 1-bromo-	598-31-2	P017
Bromoform	Methane, tribromo-	75-25-2	U225

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4-Bromophenyl phenyl ether	Benzene, 1-bromo-4-phenoxy-	101-55-3	U030
Brucine	Strychnidin-10-one, 2,3-dimethoxy-	357-57-3	P018
Butylate	Carbamothioic acid, bis(2-methylpropyl)-, S-ethyl ester	2008-41-5	
Butyl benzyl phthalate	1,2-Benzenedicarboxylic acid, butyl phenylmethyl ester	85-68-7	
Cacodylic acid	Arsinic acid, dimethyl-	75-60-5	U136
Cadmium	Same	7440-43-9	
Cadmium compounds, N.O.S.[1]			
Calcium chromate	Chromic acid H_2CrO_4, calcium salt	13765-19-0	U032
Calcium cyanide	Calcium cyanide $Ca(CN)_2$	592-01-8	P021
Carbaryl	1-Naphthalenol, methylcarbamate	63-25-2	U279
Carbendazim	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester	10605-21-7	U372
Carbofuran	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate	1563-66-2	P127
Carbofuran phenol	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-	1563-38-8	U367
Carbon disulfide	Same	75-15-0	P022
Carbon oxyfluoride	Carbonic difluoride	353-50-4	U033
Carbon tetrachloride	Methane, tetrachloro-	56-23-5	U211
Carbosulfan	Carbamic acid, [(dibutylamino) thio] methyl-, 2,3-dihydro-2,2-dimethyl-7-benzofuranyl ester	55285-14-8	P189
Chloral	Acetaldehyde, trichloro-	75-87-6	U034
Chlorambucil	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-	305-03-3	U035
Chlordane	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-	57-74-9	U036
Chlordane (alpha and gamma isomers)			U036
Chlorinated benzenes, N.O.S.[1]			
Chlorinated ethane, N.O.S.[1]			
Chlorinated fluorocarbons, N.O.S.[1]			
Chlorinated naphthalene, N.O.S.[1]			

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Chlorinated phenol, N.O.S.[1]			
Chlornaphazin	Naphthalenamine, N,N'-bis(2-chloroethyl)-	494-03-1	U026
Chloroacetaldehyde	Acetaldehyde, chloro-	107-20-0	P023
Chloroalkyl ethers, N.O.S.[1]			
p-Chloroaniline	Benzenamine, 4-chloro-	106-47-8	P024
Chlorobenzene	Benzene, chloro-	108-90-7	U037
Chlorobenzilate	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester	510-15-6	U038
p-Chloro-m-cresol	Phenol, 4-chloro-3-methyl-	59-50-7	U039
2-Chloroethyl vinyl ether	Ethene, (2-chloroethoxy)-	110-75-8	U042
Chloroform	Methane, trichloro-	67-66-3	U044
Chloromethyl methyl ether	Methane, chloromethoxy-	107-30-2	U046
beta-Chloronaphthalene	Naphthalene, 2-chloro-	91-58-7	U047
o-Chlorophenol	Phenol, 2-chloro-	95-57-8	U048
1-(o-Chlorophenyl)thiourea	Thiourea, (2-chlorophenyl)-	5344-82-1	P026
Chloroprene	1,3-Butadiene, 2-chloro-	126-99-8	
3-Chloropropionitrile	Propanenitrile, 3-chloro-	542-76-7	P027
Chromium	Same	7440-47-3	
Chromium compounds, N.O.S.[1]			
Chrysene	Same	218-01-9	U050
Citrus red No. 2	2-Naphthalenol, 1-[(2,5-dimethoxyphenyl)azo]-	6358-53-8	
Coal tar creosote	Same	8007-45-2	
Copper cyanide	Copper cyanide CuCN	544-92-3	P029
Copper dimethyldithiocarbamate	Copper, bis(dimethylcarbamodithioato-S,S’)-,	137-29-1	
Creosote	Same		U051
Cresol (Cresylic acid)	Phenol, methyl-	1319-77-3	U052
Crotonaldehyde	2-Butenal	4170-30-3	U053
m-Cumenyl methylcarbamate	Phenol, 3-(methylethyl)-, methyl carbamate	64-00-6	P202
Cyanides (soluble salts and complexes) N.O.S.[1]			P030
Cyanogen	Ethanedinitrile	460-19-5	P031
Cyanogen bromide	Cyanogen bromide (CN)Br	506-68-3	U246

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Cyanogen chloride	Cyanogen chloride (CN)Cl	506-77-4	P033
Cycasin	beta-D-Glucopyranoside, (methyl-ONN-azoxy)methyl	14901-08-7	
Cycolate	Carbamothioic acid, cyclohexylethyl-, S-ethyl ester	1134-23-2	
2-Cyclohexyl-4,6-dinitrophenol	Phenol, 2-cyclohexyl-4,6-dinitro-	131-89-5	P034
Cyclophosphamide	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide	50-18-0	U058
2,4-D	Acetic acid, (2,4-dichlorophenoxy)-	94-75-7	U240
2,4-D, salts, esters			U240
Daunomycin	5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy-alpha-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-	20830-81-3	U059
Dazomet	2H-1,3,5-thiadiazine-2-thione, tetrahydro-3,5-dimethyl	533-74-4	
DDD	Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro-	72-54-8	U060
DDE	Benzene, 1,1'-(dichloroethenylidene)bis[4-chloro-	72-55-9	
DDT	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro-	50-29-3	U061
Diallate	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester	2303-16-4	U062
Dibenz[a,h]acridine	Same	226-36-8	
Dibenz[a,j]acridine	Same	224-42-0	
Dibenz[a,h]anthracene	Same	53-70-3	U063
7H-Dibenzo[c,g]carbazole	Same	194-59-2	
Dibenzo[a,e]pyrene	Naphtho[1,2,3,4-def]chrysene	192-65-4	
Dibenzo[a,h]pyrene	Dibenzo[b,def]chrysene	189-64-0	
Dibenzo[a,i]pyrene	Benzo[rst]pentaphene	189-55-9	U064
1,2-Dibromo-3-chloropropane	Propane, 1,2-dibromo-3-chloro-	96-12-8	U066
Dibutyl phthalate	1,2-Benzenedicarboxylic acid, dibutyl ester	84-74-2	U069
o-Dichlorobenzene	Benzene, 1,2-dichloro-	95-50-1	U070
m-Dichlorobenzene	Benzene, 1,3-dichloro-	541-73-1	U071
p-Dichlorobenzene	Benzene, 1,4-dichloro-	106-46-7	U072
Dichlorobenzene, N.O.S.[1]	Benzene, dichloro-	25321-22-6	

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3,3'-Dichlorobenzidine	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-	91-94-1	U073
1,4-Dichloro-2-butene	2-Butene, 1,4-dichloro-	764-41-0	U074
Dichlorodifluoromethane	Methane, dichlorodifluoro-	75-71-8	U075
Dichloroethylene, N.O.S.[1]	Dichloroethylene	25323-30-2	
1,1-Dichloroethylene	Ethene, 1,1-dichloro-	75-35-4	U078
1,2-Dichloroethylene	Ethene, 1,2-dichlrol-, (E)-	156-60-5	U079
Dichloroethyl ether	Ethane, 1,1'oxybis[2-chloro-	111-44-4	U025
Dichloroisopropyl ether	Propane, 2,2'-oxybis[2-chloro-	108-60-1	U027
Dichloromethoxy ethane	Ethane, 1,1'-[methylenebis(oxy)]bis[2-chloro-	111-91-1	U024
Dichloromethyl ether	Methane, oxybis[chloro-	542-88-1	P016
2,4-Dichlorophenol	Phenol, 2,4-dichloro-	120-83-2	U081
2,6-Dichlorophenol	Phenol, 2,6-dichloro-	87-65-0	U082
Dichlorophenylarsine	Arsonous dichloride, phenyl-	696-28-6	P036
Dichloropropane, N.O.S.[1]	Propane, dichloro-	26638-19-7	
Dichloropropanol, N.O.S.[1]	Propanol, dichloro-	26545-73-3	
Dichloropropene, N.O.S.[1]	1-Propene, dichloro-	26952-23-8	
1,3-Dichloropropene	1-Propene, 1,3-dichloro-	542-75-6	U084
Dieldrin	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta, 6aalpha,7beta,7aalpha)-	60-57-1	P037
1,2:3,4-Diepoxybutane	2,2'-Bioxirane	1464-53-5	U085
Diethylarsine	Arsine, diethyl-	692-42-2	P038
Diethylene glycol, dicarbamate	Ethanol, 2,2'-oxybis-, dicarbamate	5952-26-1	U395
1,4-Diethyleneoxide	1,4-Dioxane	123-91-1	U108
Diethylhexyl phthalate	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester	117-81-7	U028
N,N'-Diethylhydrazine	Hydrazine, 1,2-diethyl-	1615-80-1	U086
O,O-Diethyl S-methyl dithiophosphate	Phosphorodithioic acid, O,O-diethyl S-methyl ester	3288-58-2	U087
Diethyl-p-nitrophenyl phosphate	Phosphoric acid, diethyl 4-nitrophenyl ester	311-45-5	P041
Diethyl phthalate	1,2-Benzenedicarboxylic acid, diethyl ester	84-66-2	U088
O,O-Diethyl O-pyrazinyl phosphorothioate	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester	297-97-2	P040

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Diethylstilbesterol	Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-, (E)-	56-53-1	U089
Dihydrosafrole	1,3-Benzodioxole, 5-propyl-	94-58-6	U090
Diisopropylfluorophosphate (DFP)	Phosphorofluoridic acid, bis(1-methylethyl) ester	55-91-4	P043
Dimethoate	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester	60-51-5	P044
3,3'-Dimethoxybenzidine	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-	119-90-4	U091
p-Dimethylaminoazobenzene	Benzenamine, N,N-dimethyl-4-(phenylazo)-	60-11-7	U093
7,12-Dimethylbenz[a]anthracene	Benz[a]anthracene, 7,12-dimethyl-	57-97-6	U094
3,3'-Dimethylbenzidine	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-	119-93-7	U095
Dimethylcarbamoyl chloride	Carbamic chloride, dimethyl-	79-44-7	U097
1,1-Dimethylhydrazine	Hydrazine, 1,1-dimethyl-	57-14-7	U098
1,2-Dimethylhydrazine	Hydrazine, 1,2-dimethyl-	540-73-8	U099
alpha,alpha-Dimethylphenethylamine	Benzeneethanamine, alpha,alpha-dimethyl-	122-09-8	P046
2,4-Dimethylphenol	Phenol, 2,4-dimethyl-	105-67-9	U101
Dimethyl phthalate	1,2-Benzenedicarboxylic acid, dimethyl ester	131-11-3	U102
Dimethyl sulfate	Sulfuric acid, dimethyl ester	77-78-1	U103
Dimetilan	Carbamic acid, dimethyl-, 1- [(dimethylamino) carbonyl]-5-methyl-1H-pyrazol-3-yl ester	644-64-4	P191
Dinitrobenzene, N.O.S.[1]	Benzene, dinitro-	25154-54-5	
4,6-Dinitro-o-cresol	Phenol, 2-methyl-4,6-dinitro-	534-52-1	P047
4,6-Dinitro-o-cresol salts			P047
2,4-Dinitrophenol	Phenol, 2,4-dinitro-	51-28-5	P048
2,4-Dinitrotoluene	Benzene, 1-methyl-2,4-dinitro-	121-14-2	U105
2,6-Dinitrotoluene	Benzene, 2-methyl-1,3-dinitro-	606-20-2	U106
Dinoseb	Phenol, 2-(1-methylpropyl)-4,6-dinitro-	88-85-7	P020
Di-n-octylphthalate	1,2-Benzenedicarboxylic acid, dioctyl ester	117-84-0	U017
Diphenylamine	Benzenamine, N-phenyl-	122-39-4	
1,2-Diphenylhydrazine	Hydrazine, 1,2-diphenyl-	122-66-7	U109
Di-n-propylnitrosamine	1-Propanamine, N-nitroso-N-propyl-	621-64-7	U111
Disulfiram	Thioperoxydicarbonic diamide, tetraethyl	97-77-8	

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Disulfoton	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester	298-04-4	P039
Dithiobiuret	Thioimidodicarbonic diamide $[(H_2N)C(S)]_2NH$	541-53-7	P049
Endosulfan	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide	115-29-7	P050
Endothall	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid	145-73-3	P088
Endrin	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-,(1aalpha,2beta,2abeta,3alpha,6alpha, 6abeta,7beta,7aalpha)-	72-20-8	P051
Endrin metabolites			P051
Epichlorohydrin	Oxirane, (chloromethyl)-	106-89-8	U041
Epinephrine	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-, (R)-	51-43-4	P042
EPTC	Carbamothioic acid, dipropyl-, S-ethyl ester	759-94-4	
Ethyl carbamate (urethane)	Carbamic acid, ethyl ester	51-79-6	U238
Ethyl cyanide	Propanenitrile	107-12-0	P101
Ethylenebisdithiocarbamic acid	Carbamodithioic acid, 1,2-ethanediylbis-	111-54-6	U114
Ethylenebisdithiocarbamic acid, salts and esters			U114
Ethylene dibromide	Ethane, 1,2-dibromo-	106-93-4	U067
Ethylene dichloride	Ethane, 1,2-dichloro-	107-06-2	U077
Ethylene glycol monoethyl ether	Ethanol, 2-ethoxy-	110-80-5	U359
Ethyleneimine	Aziridine	151-56-4	P054
Ethylene oxide	Oxirane	75-21-8	U115
Ethylenethiourea	2-Imidazolidinethione	96-45-7	U116
Ethylidene dichloride	Ethane, 1,1-dichloro-	75-34-3	U076
Ethyl methacrylate	2-Propenoic acid, 2-methyl-, ethyl ester	97-63-2	U118
Ethyl methanesulfonate	Methanesulfonic acid, ethyl ester	62-50-0	U119
Ethyl Ziram	Zinc, bis(diethylcarbamodithioato-S,S’)-	14324-55-1	
Famphur	Phosphorothioic acid, O-[4-[(dimethylamino)sulfonyl]phenyl] O,O-dimethyl ester	52-85-7	P097
Ferbam	Iron, tris(dimethylcarbamodithioato-S,S’)-	14484-64-1	
Fluoranthene	Same	206-44-0	U120

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Fluorine	Same	7782-41-4	P056
Fluoroacetamide	Acetamide, 2-fluoro-	640-19-7	P057
Fluoroacetic acid, sodium salt	Acetic acid, fluoro-, sodium salt	62-74-8	P058
Formaldehyde	Same	50-00-0	U122
Formetanate hydrochloride	Methanimidamide, N,N-dimethyl-N'-[3-[[(methylamino) carbonyl]oxy]phenyl]-, monohydrochloride	23422-53-9	P198
Formic acid	Same	64-18-6	U123
Formparanate	Methanimidamide, N,N-dimethyl-N'-[2-methyl-4-[[(methylamino) carbonyl]oxy]phenyl]-.	17702-57-7	P197
Glycidylaldehyde	Oxiranecarboxyaldehyde	765-34-4	U126
Halomethanes, N.O.S.[1]			
Heptachlor	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-	76-44-8	P059
Heptachlor epoxide	2,5-Methano-2H-indeno[1,2-b]oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexa-hydro-, (1aalpha,1bbeta,2alpha,5alpha, 5abeta,6beta,6aalpha)-	1024-57-3	
Heptachlor epoxide (alpha, beta, and gamma isomers)			
Heptachlorodibenzofurans.			
Heptachlorodibenzo-p-dioxins			
Hexachlorobenzene	Benzene, hexachloro-	118-74-1	U127
Hexachlorobutadiene	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	87-68-3	U128
Hexachlorocyclopentadiene	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-	77-47-4	U130
Hexachlorodibenzo-p-dioxins			
Hexachlorodibenzofurans			
Hexachloroethane	Ethane, hexachloro-	67-72-1	U131
Hexachlorophene	Phenol, 2,2'-methylenebis[3,4,6-trichloro-	70-30-4	U132
Hexachloropropene	1-Propene, 1,1,2,3,3,3-hexachloro-	1888-71-7	U243
Hexaethyl tetraphosphate	Tetraphosphoric acid, hexaethyl ester	757-58-4	P062
Hydrazine	Same	302-01-2	U133
Hydrogen cyanide	Hydrocyanic acid	74-90-8	P063
Hydrogen fluoride	Hydrofluoric acid	7664-39-3	U134

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Hydrogen sulfide	Hydrogen sulfide H_2S	7783-06-4	U135
Indeno[1,2,3-cd]pyrene	Same	193-39-5	U137
3-Iodo-2-propynyl n-butylcarbamate	Carbamic acid, butyl-, 3-iodo-2-propynyl ester	55406-53-6	
Isobutyl alcohol	1-Propanol, 2-methyl-	78-83-1	U140
Isodrin	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-,(1alpha,4alpha,4abeta,5beta,8beta,-8abeta) -	465-73-6	P060
Isolan	Carbamic acid, dimethyl-, 3-methyl-1-(1-methylethyl)-1H-pyrazol-5-yl ester	119-38-0	P192
Isosafrole	1,3-Benzodioxole, 5-(1-propenyl)-	120-58-1	U141
Kepone	1,3,4-Metheno-2H-cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-	143-50-0	U142
Lasiocarpine	2-Butenoic acid, 2-methyl-,7-[[2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1 -oxobutoxy]methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-[1alpha(Z),7(2S*,3R*),7aalpha]]-	303-34-1	U143
Lead	Same	7439-92-1	
Lead compounds, N.O.S.[1]			
Lead acetate	Acetic acid, lead(2+) salt	301-04-2	U144
Lead phosphate	Phosphoric acid, lead(2+) salt (2:3)	7446-27-7	U145
Lead subacetate	Lead, bis(acetato-O)tetrahydroxytri-	1335-32-6	U146
Lindane	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha,5alpha,6beta)-	58-89-9	U129
Maleic anhydride	2,5-Furandione	108-31-6	U147
Maleic hydrazide	3,6-Pyridazinedione, 1,2-dihydro-	123-33-1	U148
Malononitrile	Propanedinitrile	109-77-3	U149
Manganese dimethyldithiocarbamate	Manganese, bis(dimethylcarbamodithioato-S,S')-,	15339-36-3	P196
Melphalan	L-Phenylalanine, 4-[bis(2-chloroethyl)aminol]-	148-82-3	U150
Mercury	Same	7439-97-6	U151
Mercury compounds, N.O.S.[1]			
Mercury fulminate	Fulminic acid, mercury(2+) salt	628-86-4	P065
Metam Sodium	Carbamodithioic acid, methyl-, monosodium salt	137-42-8	
Methacrylonitrile	2-Propenenitrile, 2-methyl-	126-98-7	U152

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Methapyrilene	1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-	91-80-5	U155
Methiocarb	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate	2032-65-7	P199
Methomyl	Ethanimidothioic acid, N-[[(methylamino)carbonyl]oxy]-, methyl ester	16752-77-5	P066
Methoxychlor	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-methoxy-	72-43-5	U247
Methyl bromide	Methane, bromo-	74-83-9	U029
Methyl chloride	Methane, chloro-	74-87-3	U045
Methyl chlorocarbonate	Carbonochloridic acid, methyl ester	79-22-1	U156
Methyl chloroform	Ethane, 1,1,1-trichloro-	71-55-6	U226
3-Methylcholanthrene	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-	56-49-5	U157
4,4'-Methylenebis (2-chloroaniline)	Benzenamine, 4,4'-methylenebis[2-chloro-	101-14-4	U158
Methylene bromide	Methane, dibromo-	74-95-3	U068
Methylene chloride	Methane, dichloro-	75-09-2	U080
Methyl ethyl ketone (MEK)	2-Butanone	78-93-3	U159
Methyl ethyl ketone peroxide	2-Butanone, peroxide	1338-23-4	U160
Methyl hydrazine	Hydrazine, methyl-	60-34-4	P068
Methyl iodide	Methane, iodo-	74-88-4	U138
Methyl isocyanate	Methane, isocyanato-	624-83-9	P064
2-Methyllactonitrile	Propanenitrile, 2-hydroxy-2-methyl-	75-86-5	P069
Methyl methacrylate	2-Propenoic acid, 2-methyl-, methyl ester	80-62-6	U162
Methyl methanesulfonate	Methanesulfonic acid, methyl ester	66-27-3	
Methyl parathion	Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester	298-00-0	P071
Methylthiouracil	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-	56-04-2	U164
Metolcarb	Carbamic acid, methyl-, 3-methylphenyl ester	1129-41-5	P190
Mexacarbate	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester)	315-18-4	P128
Mitomycin C	Azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione, 6-amino-8-[[(aminocarbonyl)oxy]methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5- methyl-, [1aS-(1aalpha,8beta,8aalpha,8balpha)]-	50-07-7	U010
MNNG	Guanidine, N-methyl-N'-nitro-N-nitroso-	70-25-7	U163

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Molinate	1H-Azepine-1-carbothioic acid, hexahydro-, S-ethyl ester	2212-67-1	
Mustard gas	Ethane, 1,1'-thiobis[2-chloro-	505-60-2	
Naphthalene	Same	91-20-3	U165
1,4-Naphthoquinone	1,4-Naphthalenedione	130-15-4	U166
alpha-Naphthylamine	1-Naphthalenamine	134-32-7	U167
beta-Naphthylamine	2-Naphthalenamine	91-59-8	U168
alpha-Naphthylthiourea	Thiourea, 1-naphthalenyl-	86-88-4	P072
Nickel	Same	7440-02-0	
Nickel compounds, N.O.S.[1]			
Nickel carbonyl	Nickel carbonyl $Ni(CO)_4$, (T-4)-	13463-39-3	P073
Nickel cyanide	Nickel cyanide $Ni(CN)_2$	557-19-7	P074
Nicotine	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-	54-11-5	P075
Nicotine salts			P075
Nitric oxide	Nitrogen oxide NO	10102-43-9	P076
p-Nitroaniline	Benzenamine, 4-nitro-	100-01-6	P077
Nitrobenzene	Benzene, nitro-	98-95-3	U169
Nitrogen dioxide	Nitrogen oxide NO_2	10102-44-0	P078
Nitrogen mustard	Ethanamine, 2-chloro-N-(2-chloroethyl)-N-methyl-	51-75-2	
Nitrogen mustard, hydrochloride salt			
Nitrogen mustard N-oxide	Ethanamine, 2-chloro-N-(2-chloroethyl)-N-methyl-, N-oxide	126-85-2	
Nitrogen mustard, N-oxide, hydrochloride salt			
Nitroglycerin	1,2,3-Propanetriol, trinitrate	55-63-0	P081
p-Nitrophenol	Phenol, 4-nitro-	100-02-7	U170
2-Nitropropane	Propane, 2-nitro-	79-46-9	U171
Nitrosamines, N.O.S.[1]		35576-91-1D	
N-Nitrosodi-n-butylamine	1-Butanamine, N-butyl-N-nitroso-	924-16-3	U172
N-Nitrosodiethanolamine	Ethanol, 2,2'-(nitrosoimino)bis-	1116-54-7	U173
N-Nitrosodiethylamine	Ethanamine, N-ethyl-N-nitroso-	55-18-5	U174
N-Nitrosodimethylamine	Methanamine, N-methyl-N-nitroso-	62-75-9	P082
N-Nitroso-N-ethylurea	Urea, N-ethyl-N-nitroso-	759-73-9	U176

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N-Nitrosomethylethylamine	Ethanamine, N-methyl-N-nitroso-	10595-95-6	
N-Nitroso-N-methylurea	Urea, N-methyl-N-nitroso-	684-93-5	U177
N-Nitroso-N-methylurethane	Carbamic acid, methylnitroso-, ethyl ester	615-53-2	U178
N-Nitrosomethylvinylamine	Vinylamine, N-methyl-N-nitroso-	4549-40-0	P084
N-Nitrosomorpholine	Morpholine, 4-nitroso-	59-89-2	
N-Nitrosonornicotine	Pyridine, 3-(1-nitroso-2-pyrrolidinyl)-, (S)-	16543-55-8	
N-Nitrosopiperidine	Piperidine, 1-nitroso-	100-75-4	U179
N-Nitrosopyrrolidine	Pyrrolidine, 1-nitroso-	930-55-2	U180
N-Nitrososarcosine	Glycine, N-methyl-N-nitroso-	13256-22-9	
5-Nitro-o-toluidine	Benzenamine, 2-methyl-5-nitro-	99-55-8	U181
Octachlorodibenzo-p-dioxin (OCDD)	1, 2, 3, 4, 6, 7, 8, 9-Octachlorodibenzo-p-dioxin	3268-87-9	
Octachlorodibenzofuran (OCDF)	1, 2, 3, 4, 6, 7, 8, 9-Octachlorodibenofuran	39001-02-0	
Octamethylpyrophos-phoramide	Diphosphoramide, octamethyl-	152-16-9	P085
Osmium tetroxide	Osmium oxide OsO_4, (T-4)-	20816-12-0	P087
Oxamyl	Ethanimidothioc acid, 2-(dimethylamino)-N-[[(methylamino)carbonyl]-oxy]-2-oxo-, methyl ester	23135-22-0	P194
Paraldehyde	1,3,5-Trioxane, 2,4,6-trimethyl-	123-63-7	U182
Parathion	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester	56-38-2	P089
Pebulate	Carbamothioic acid, butylethyl-, S-propyl ester	1114-71-2	
Pentachlorobenzene	Benzene, pentachloro-	608-93-5	U183
Pentachlorodibenzo-p-dioxins			
Pentachlorodibenzofurans			
Pentachloroethane	Ethane, pentachloro-	76-01-7	U184
Pentachloronitrobenzene (PCNB)	Benzene, pentachloronitro-	82-68-8	U185
Pentachlorophenol	Phenol, pentachloro-	87-86-5	See F027
Phenacetin	Acetamide, N-(4-ethoxyphenyl)-	62-44-2	U187
Phenol	Same	108-95-2	U188

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Phenylenediamine	Benzenediamine	25265-76-3	
Phenylmercury acetate	Mercury, (acetato-O)phenyl-	62-38-4	P092
Phenylthiourea	Thiourea, phenyl-	103-85-5	P093
Phosgene	Carbonic dichloride	75-44-5	P095
Phosphine	Same	7803-51-2	P096
Phorate	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester	298-02-2	P094
Phthalic acid esters, N.O.S.[1]			
Phthalic anhydride	1,3-Isobenzofurandione	85-44-9	U190
Physostigmine	Pyrrolo[2,3-b]indol-5-01, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester), (3aS-cis)-	57-47-6	P204
Physostigmine salicylate	Benzoic acid, 2-hydroxy-, compd. with (3aS-cis) --1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo [2,3-b]indol-5-yl methylcarbamate ester (1:1)	57-64-7	P188
2-Picoline	Pyridine, 2-methyl-	109-06-8	U191
Polychlorinated biphenyls, N.O.S.[1]			
Potassium cyanide	Potassium cyanide K(CN)	151-50-8	P098
Potassium dimethyldithiocarbamate	Carbamodithioic acid, dimethyl, potassium salt	128-03-0	
Potassium n-hydroxymethyl-n-methyl-dithiocarbamate	Carbamodithioic acid, (hydroxymethyl)methyl-, monopotassium salt	51026-28-9	
Potassium n-methyldithiocarbamate	Carbamodithioic acid, methyl-monopotassium salt	137-41-7	
Potassium pentachlorophenate	Pentachlorophenol, potassium salt	7778736	None
Potassium silver cyanide	Argentate(1-), bis(cyano-C)-, potassium	506-61-6	P099
Promecarb	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate	2631-37-0	P201
Pronamide	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-	23950-58-5	U192
1,3-Propane sultone	1,2-Oxathiolane, 2,2-dioxide	1120-71-4	U193
Propham	Carbamic acid, phenyl-, 1-methylethyl ester	122-42-9	U373
Propoxur	Phenol, 2-(1-methylethoxy)-, methylcarbamate	114-26-1	U411
n-Propylamine	1-Propanamine	107-10-8	U194
Propargyl alcohol	2-Propyn-1-ol	107-19-7	P102

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Propylene dichloride	Propane, 1,2-dichloro-	78-87-5	U083
1,2-Propylenimine	Aziridine, 2-methyl-	75-55-8	P067
Propylthiouracil	4(1H)-Pyrimidinone, 2,3-dihydro-6-propyl-2-thioxo-	51-52-5	
Prosulfocarb	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester	52888-80-9	U387
Pyridine	Same	110-86-1	U196
Reserpine	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-smethyl ester, (3beta,16beta,17alpha,18beta,20alpha)-	50-55-5	U200
Resorcinol	1,3-Benzenediol	108-46-3	U201
Saccharin	1,2-Benzisothiazol-3(2H)-one, 1,1-dioxide	81-07-2	U202
Saccharin salts			U202
Safrole	1,3-Benzodioxole, 5-(2-propenyl)-	94-59-7	U203
Selenium	Same	7782-49-2	
Selenium compounds, N.O.S.[1]			
Selenium dioxide	Selenious acid	7783-00-8	U204
Selenium sulfide	Selenium sulfide SeS_2	7488-56-4	U205
Selenium, tetrakis(dimethyl-dithiocarbamate)	Carbamodithioic acid, dimethyl-, tetraanhydrosulfide with orthothioselenious acid	144-34-3	
Selenourea	Same	630-10-4	P103
Silver	Same	7440-22-4	
Silver compounds, N.O.S.[1]			
Silver cyanide	Silver cyanide Ag(CN)	506-64-9	P104
Silvex (2,4,5-TP)	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-	93-72-1	See F027
Sodium cyanide	Sodium cyanide Na(CN)	143-33-9	P106
Sodium dibutyldithiocarbamate	Carbamodithioic acid, dibutyl, sodium salt	136-30-1	
Sodium diethyldithiocarbamate	Carbamodithioic acid, diethyl-, sodium salt	148-18-5	
Sodium dimethyldithiocarbamate	Carbamodithioic acid, dimethyl-, sodium salt	128-04-1	
Sodium pentachlorophenate	Pentachlorophenol, sodium salt	131522	None
Streptozotocin	D-Glucose, 2-deoxy-2-[[(methylnitrosoamino)carbonyl]amino]-	18883-66-4	U206

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Strychnine	Strychnidin-10-one	57-24-9	P108
Strychnine salts			P108
Sulfallate	Carbamodithioic acid, diethyl-, 2-chloro-2-propenyl ester	95-06-7	
TCDD	Dibenzo[b,e][1,4]dioxin, 2,3,7,8-tetrachloro-	1746-01-6	
Tetrabutylthiuram disulfide	Thioperoxydicarbonic diamide, tetrabutyl	1634-02-2	
1,2,4,5-Tetrachlorobenzene	Benzene, 1,2,4,5-tetrachloro-	95-94-3	U207
Tetrachlorodibenzo-p-dioxins			
Tetrachlorodibenzofurans			
Tetrachloroethane, N.O.S.[1]	Ethane, tetrachloro-, N.O.S.	25322-20-7	
1,1,1,2-Tetrachloroethane	Ethane, 1,1,1,2-tetrachloro-	630-20-6	U208
1,1,2,2-Tetrachloroethane	Ethane, 1,1,2,2-tetrachloro-	79-34-5	U209
Tetrachloroethylene	Ethene, tetrachloro-	127-18-4	U210
2,3,4,6-Tetrachlorophenol	Phenol, 2,3,4,6-tetrachloro-	58-90-2	See F027
***2,3,4,6-tetrachlorophenol, potassium salt	same	53535276	None
2,3,4,6-tetrachlorophenol, sodium salt	same	25567559	None
Tetraethyldithiopyrophosphate	Thiodiphosphoric acid, tetraethyl ester	3689-24-5	P109
Tetraethyl lead	Plumbane, tetraethyl-	78-00-2	P110
Tetraethyl pyrophosphate	Diphosphoric acid, tetraethyl ester	107-49-3	P111
Tetramethylthiuram monosulfide	Bis(dimethylthiocarbamoyl) sulfide	97-74-5	
Tetranitromethane	Methane, tetranitro-	509-14-8	P112
Thallium	Same	7440-28-0	
Thallium compounds, N.O.S.[1]			
Thallic oxide	Thallium oxide Tl_2O_3	1314-32-5	P113
Thallium(I) acetate	Acetic acid, thallium(1+) salt	563-68-8	U214
Thallium(I) carbonate	Carbonic acid, dithallium(1+) salt	6533-73-9	U215
Thallium(I) chloride	Thallium chloride TlCl	7791-12-0	U216
Thallium(I) nitrate	Nitric acid, thallium(1+) salt	10102-45-1	U217
Thallium selenite	Selenious acid, dithallium(1+) salt	12039-52-0	P114
Thallium(I) sulfate	Sulfuric acid, dithallium(1+) salt	7446-18-6	P115

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Thioacetamide	Ethanethioamide	62-55-5	U218
Thiodicarb	Ethanimidothioic acid, N,N'-[thiobis [(methylimino) carbonyloxy]] bis-, dimethyl ester.	59669-26-0	U410
Thiofanox	2-Butanone, 3,3-dimethyl-1-(methylthio)-, 0-[(methylamino)carbonyl] oxime	39196-18-4	P045
Thiomethanol	Methanethiol	74-93-1	U153
Thiophanate-methyl	Carbamic acid, [1,2-phyenylenebis (iminocarbonothioyl)] bis-, dimethyl ester	23564-05-8	U409
Thiophenol	Benzenethiol	108-98-5	P014
Thiosemicarbazide	Hydrazinecarbothioamide	79-19-6	P116
Thiourea	Same	62-56-6	U219
Thiram	Thioperoxydicarbonic diamide $[(H_2N)C(S)]_2S_2$, tetramethyl-	137-26-8	U244
Tirpate	1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, O-[(methylamino) carbonyl] oxime	26419-73-8	P185
Toluene	Benzene, methyl-	108-88-3	U220
Toluenediamine	Benzenediamine, ar-methyl-	25376-45-8	U221
Toluene-2,4-diamine	1,3-Benzenediamine, 4-methyl-	95-80-7	
Toluene-2,6-diamine	1,3-Benzenediamine, 2-methyl-	823-40-5	
Toluene-3,4-diamine	1,2-Benzenediamine, 4-methyl-	496-72-0	
Toluene diisocyanate	Benzene, 1,3-diisocyanatomethyl-	26471-62-5	U223
o-Toluidine	Benzenamine, 2-methyl-	95-53-4	U328
o-Toluidine hydrochloride	Benzenamine, 2-methyl-, hydrochloride	636-21-5	U222
p-Toluidine	Benzenamine, 4-methyl-	106-49-0	U353
Toxaphene	Same	8001-35-2	P123
Triallate	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester	2303-17-5	U389
1,2,4-Trichlorobenzene	Benzene, 1,2,4-trichloro-	120-82-1	
1,1,2-Trichloroethane	Ethane, 1,1,2-trichloro-	79-00-5	U227
Trichloroethylene	Ethene, trichloro-	79-01-6	U228
Trichloromethanethiol	Methanethiol, trichloro-	75-70-7	P118
Trichloromonofluoro methane	Methane, trichlorofluoro-	75-69-4	U121
2,4,5-Trichlorophenol	Phenol, 2,4,5-trichloro-	95-95-4	See F027
2,4,6-Trichlorophenol	Phenol, 2,4,6-trichloro-	88-06-2	See F027
2,4,5-T	Acetic acid, (2,4,5-trichlorophenoxy)-	93-76-5	See F027

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Trichloropropane, N.O.S.[1]		25735-29-9	
1,2,3-Trichloropropane	Propane, 1,2,3-trichloro-	96-18-4	
Triethylamine	Ethanamine, N,N-diethyl-	121-44-8	U404
O,O,O-Triethyl phosphorothioate	Phosphorothioic acid, O,O,O-triethyl ester	126-68-1	
1,3,5-Trinitrobenzene	Benzene, 1,3,5-trinitro-	99-35-4	U234
Tris(1-aziridinyl)phosphine sulfide	Aziridine, 1,1',1"-phosphinothioylidynetris-	52-24-4	
Tris(2,3-dibromopropyl) phosphate	1-Propanol, 2,3-dibromo-, phosphate (3:1)	126-72-7	U235
Trypan blue	2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis(azo)]- bis[5-amino-4-hydroxy-, tetrasodium salt	72-57-1	U236
Uracil mustard	2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]-	66-75-1	U237
Vanadium pentoxide	Vanadium oxide V_2O_5	1314-62-1	P120
Vernolate	Carbamothioic acid, dipropyl-,S-propyl ester	1929-77-7	
Vinyl chloride	Ethene, chloro-	75-01-4	U043
Warfarin	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, when present at concentrations less than 0.3%	81-81-2	U248
Warfarin	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, when present at concentrations greater than 0.3%	81-81-2	P001
Warfarin salts, when present at concentrations less than 0.3%			U248
Warfarin salts, when present at concentrations greater than 0.3%			P001
Zinc cyanide	Zinc cyanide $Zn(CN)_2$	557-21-1	P121
Zinc phosphide	Zinc phosphide Zn_3P_2, when present at concentrations greater than 10%	1314-84-7	P122
Zinc phosphide	Zinc phosphide Zn_3P_2, when present at concentrations of 10% or less	1314-84-7	U249
Ziram	Zinc, bis(dimethylcarbamodithioato-S,S')-, (T-4)-	137-30-4	P205

FOOTNOTE: [1]The abbreviation N.O.S. (not otherwise specified) signifies those members of the general class not specifically listed by name in this appendix.

Appendix IX - (Reserved) [40 CFR 261 Appendix IX]

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(Note: EPA maintains the listing in Appendix IX.)

Authority: T.C.A. §§4-5-202 and 68-212-101 et seq. Administrative History: Original rule filed January 16, 1981; effective March 2, 1981. Amendment filed November 29, 1984; effective December 29, 1984. Amendment filed January 3, 1986; effective December 4, 1988. Amendment filed October 12, 1989; effective November 26, 1989. Amendment filed November 6, 1989; effective February 28, 1990. Amendment filed March 5, 1981; effective April 19, 1994. Amendment filed December 31, 1991; effective February 14, 1992. Amendment filed March 19, 1993 effective May 3, 1993. Amendment filed November 30, 1993; effective February 13, 1994. Amendment filed June 5, 1995; effective August 19, 1995. Amendment filed January 29, 1997; effective April 14, 1997. Amendment filed August 28, 1997; effective November 11, 1997. Amendment filed June 29, 1998; effective September 12, 1998. Amendment filed May 7, 1999; effective July 19, 1999. Amendment filed September 14, 2000; effective November 28, 2000. Amendment filed August 3, 2001; effective October 17, 2001. Amendment filed May 8, 2002; effective July 22, 2002. Amendment filed July 25, 2002; effective October 8, 2002. Amendment filed October 29, 2003; effective January 12, 2004. Amendment filed June 23, 2004 effective September 6, 2004.